ABDO

THE RELATIONSHIP BETWEEN MINDFULNESS AND BURNOUT AMONGST EMPLOYEES IN A SOUTH AFRICAN CORPORATE ORGANISATION

by

Durnaine,

HUSAIN (ABDOOL KARRIM ISMAIL)

MINI DISSERTATION

Submitted in partial fulfilment of the requirements for the degree

MASTER OF ARTS
IN CLINICAL PSYCHOLOGY

in the

FACULTY OF HUMANITIES

at the

UNIVERSITY OF JOHANNESBURG

SUPERVISOR: DR NICOLEEN COETZEE

APRIL 2010

ACKNOWLEDGEMENTS

All praise is due to God, Lord of all the worlds. This work has crystallised out of the loving efforts of numerous people. They have all truly been nothing less than the manifestation of God's love and grace in my life during my finest and darkest hours. I would like to convey my deepest gratitude to the following people for their contribution and support:

- To my wife, Nafiza. Thank you for your unwavering support and belief in me. Your love has found expression in every facet of my life, including this work. I dedicate this work to you.

- To my children, Abdullah and Onaysah. Everyday with you is a blessing and a lesson in love. I am proud of you and I love you both.

- To my supervisor par excellence, Dr Nicoleen Coetzee. Thank you for your infectious passion and dedication. Your wisdom permeates the fabric of every aspect of this work. I wish upon every student a teacher like you.

- To my father-in-law, Mr Ismail Gafoor Khan and his family. Thank you for your moral and spiritual support of my studies over the years in the face of tradition. You exemplify courage, foresight and Prophetic character.

- To my late father. Your dreams are expressed in these pages as are mine. In my moments of beleagueredness it was the flint that gave spark to my audacity to persevere. May the face of the divine smile on you wherever you are.

- To my brother Faizel. Your example and your support and belief in me have been a reservoir of courage and strength to face the challenge of completing this task.

- To my fellow journeyman, Duncan Yates. Your friendship and companionship has been one of my greatest blessings. Thanks for the love.

- To my colleague David Rosenstein. Thank you for introducing me to the field of mindfulness. I am most grateful.

- To Kirk W. Brown and Richard M. Ryan. Thank you for developing the MAAS and providing me with the instrument and the literature necessary for the study.

- To Evangelica Demerouti. Thank you for developing the OLBI and providing me with the instrument and the literature necessary for the study.

- To the HR personnel of the bank for allowing staff to participate in the study.

- To the participants who gave their time despite their grueling workloads. Many thanks for your contribution and sacrifice.

- To Juliana Van Staden at STATKON, for the brilliant data analysis. You are truly an angelic spirit. The world should have more of you.

- To Carol Saccaggi, for assisting me with the language editing. Thank you for an outstanding delivery despite grueling deadlines.

- To all who have supported me in spirit and in deed over the years. May peace be with you all.

DECLARATION

I, Husain Abdool Karrim Ismail, declare that this minor dissertation for the Clinical Psychology masters degree at the University of Johannesburg hereby submitted has not previously been submitted for a degree at this or any other university and that it is my own work in design and in execution and that the reference material contained herein has been duly acknowledge.

Yours truly,

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

ABSTRACT

Burnout due to work-related stress is an ever-increasing problem around the world. Burnout is virulent and has entrenched itself in modern corporate life making corporate workers susceptible to its effects. Mindfulness meditation training has been found to be beneficial in enhancing psychological welfare and can ameliorate the effects of burnout. Research on burnout and mindfulness has been limited within the South African corporate context.

This study aimed to explore the extent of burnout among employees in a South African corporate organisation and to examine the relationship between burnout and mindfulness in the same population. It was hypothesised that burnout was prevalent and that there will be a statistically significant relationship between mindfulness and burnout. Another aim was to determine whether the OLBI and the MAAS were reliable for use in a South African context. An additional aim was to determine which variable (mindfulness, job satisfaction or social support) contributed significantly to burnout.

The sample consisted of 207 participants from a bank in Johannesburg. Each participant completed a biographical data questionnaire, the Oldenburg Burnout Inventory (OLBI), the Mindful Attention Awareness Scale (MAAS), the Overall Job Satisfaction scale and the Social Support scale.

The results of this research confirmed that burnout was prevalent in the organisation. However, the prevalence was not as extensive as expected. Nevertheless, results indicated that some participants were exhausted. The results provide evidence for a moderately significant negative correlation between burnout and mindfulness [$r = -0.543$, $p < 0.01$]. This suggests that the therapeutic benefits of mindfulness training can potentially be accessed to ameliorate the negative effects of burnout. High reliability coefficients were found for the OLBI (alpha=0.883), MAAS (alpha=0.904), Job Satisfaction (alpha=0.732) and Social Support (alpha=0.809) scales. Three variables (mindfulness, job satisfaction and social support) explained 59.3% of the variance in burnout [$F(3, 198) = 96.31$, $p<0.001$]. Job satisfaction contributed

most to burnout, recording the highest beta value [beta = -.472, $p < .001$]. Mindfulness was the second highest contributor [beta = -.379, $p < .001$], followed by social support [beta = -.175, $p < .001$].

Support was garnered for the use of the Job Demands-Resources (JD-R) model as a framework for examining burnout among corporate workers insofar as job resources mediated between job demands and burnout. Future studies should involve large-scale standardisation research for the OLBI and the MAAS in order to expand their use beyond their research utility and allow for their use in everyday circumstances.

CHAPTER 1

INTRODUCTION TO RESEARCH

1.1 Introduction

Burnout is a psychological response to chronic work stress (Halbesleben & Demerouti, 2005) and is the most frequently noted consequence of chronic stress in the workplace (Sharkey & Sharples, 2003). Stress has an impact on absenteeism rates, job performance, effectiveness and satisfaction (Burnard, Edwards, Fothergill, Hannigan & Coyle, 2000). According to Rosse, Boss, Johnson and Crown (1991) a sizable body of literature documents the association between burnout and a host of maladies, ranging from apathy and lack of concern for clients and co-workers to serious health consequences. Maslach, Schaufeli and Leiter (2001) associate burnout with absenteeism, intentions to leave a job, turnover, low productivity and effectiveness, feelings of anxiety, low self-esteem and depression. Industry leaders have openly expressed alarm over the astronomical costs they believe their organisations have incurred from stress-related absenteeism, turnover, accidents, decreased productivity and medical expenses (Danna & Griffin, 1999). Burnout has thus become a feature of modern corporate life and corporate workers are extremely vulnerable to its effects (Hudson, 2005).

Over the past 30 years interest in burnout, from academics and managers alike, has increased dramatically. Researchers have begun to understand the significant negative impact burnout has on employees (Halbesleben & Buckley, 2004). The increasing number of long-term disability claims filed by workers as a result of burnout has led to significant burdens for employees, employers and insurers worldwide (Maslach et al., 2001). Every employer survey aimed at targeting the main workplace issues points to stress as the root problem (Quinn, 2008).

A survey conducted by Watson Wyatt based in Washington, D.C. found that 48% of U.S. employers reported that work-related stress affected their

performance (Leading, 2008). Stress is also the most frequently cited reason U.S. workers gave for why they would leave a company (Leading, 2008). According to Leiter and Maslach (2005) disengaged and unhappy employees cost the British economy almost £46 billion a year in low productivity and lost working days. The researchers further note that long-term disability claims based on stress, burnout and depression are the fastest-growing category of claims in North America and Europe.

According to the Fourth European Working Conditions Survey (Parent-Thirion, Macías, Hurley & Vermeylen, 2005) that was conducted in late 2005 amongst 30,000 workers from 31 countries, work-related stress is a common work-related health problem, affecting 22.3% of European workers. A March 2008 report by the Royal College of Psychiatry (RCP), found that sick leave due to mental health problems is likely to last longer than that caused by physical illness. The report also noted that such problems account for 47% of long-term absence from work (O'Reilly, 2008).

Burnout Britain is a survey that examines awareness and opinion, among both United Kingdom employers and employees, of employee burnout (Hudson, 2005). *Burnout Britain* forms part of an annual programme of qualitative and quantitative research conducted by Hudson, a global recruitment and Human Resources (HR) consultancy. This programme looks at issues and trends affecting the modern workplace. Although the research revealed that relatively few employees are currently experiencing full burnout, a significant proportion of workers are experiencing typical symptoms of burnout or displaying worrying levels of workplace apathy and disinterest. Symptoms include loss of sleep, emotional exhaustion and high stress levels (Hudson, 2005). The key findings of the Hudson study are as follows:

- More than half (52%) of Britain's employees claim to have experienced one or more symptoms of over-work or burnout in the last six months;
- One in two employees (49%) and employers (46%) thought the situation had worsened in the last five years;

- 4% of employees believed they were burned out or near to burnout. A further 8% said they rarely enjoyed their work and were stressed most of the time;
- Employees (76%) and employers (78%) were most likely to believe that the increased pace of business life was a cause of burnout;
- 52% of employees and 35% of employers believed that burnout had happened to one or more colleagues;
- One in seven (14%) of the HR managers interviewed have lost one or more members of staff due to burnout;
- Over a third of employers (36%) have witnessed a decline in productivity and the vast majority (79%) reported an increase in the number of sick days being taken;
- 59% of employers have no formal process in place for helping an employee who is suffering from burnout (falling to just 30% amongst smaller employers);
- One third (35%) of employees are concerned that their employers have made no attempts to address increased workloads; and
- One third of employees (31%) have experienced physical or emotional exhaustion in the last six months and 26% suffered loss of sleep or illness due to worrying about work.

Despite comprehensive studies on burnout internationally, South Africa has produced relatively few studies on burnout. South African studies on burnout have focused on those working directly with other people in a service capacity. Burnout research in South Africa has included the South African police service (Storm & Rothmann, 2003), educators in secondary and higher educational institutions (Pretorius, 1994; Rothmann & Essenko, 2007; van Tonder & Williams, 2009), the nursing profession (Heyns, Venter, Esterhuyse, Bam & Odendaal, 2003), medical practitioners (Peltzer, Mashego, & Mabeba, 2003), hospice workers (Sardiwalla, VandenBerg & Esterhuyse, 2007), the hospitality industry (Pienaar & Willemse, 2008), social workers (Bhana & Haffejee, 1996) and clergy (Strümpfer & Bands, 1996). A number of these studies focused on job related stress regarded as the precursor to burnout. One South African study (n=21307) on self-reported job stress and job

satisfaction, and the prevalence of stress-related illnesses and risk factors among educators reported that the prevalence of stress-related illnesses was (Peltzer, Shisana, Zuma, Van Wyk & Zungu-Dirwayi, 2009):

- 15.6% for hypertension;
- 9.1% stomach ulcer;
- 4.5% diabetes;
- 3.3% minor mental distress;
- 3.1% major mental distress; and
- 3.5% asthma.

The study also found job stress and lack of job satisfaction was associated with most stress-related illnesses, including hypertension, heart disease, stomach ulcer, asthma, mental distress, tobacco and alcohol misuse. Furthermore, work stress from low peer support was related to hypertension (Peltzer, Shisana, Zuma, Van Wyk & Zungu-Dirwayi, 2009).

These findings confirm the notion that burnout due to work-related stress is an ever-increasing problem around the world. The results of the studies mentioned indicate that maintaining employees' psychological well-being will provide long term financial rewards for organisations.

Mindfulness meditation training has been found to be beneficial in enhancing psychological well-being. Mindfulness is increasingly being recognised as having salutogenic utility. Mindfulness-based treatments have had ameliorating effects on outcomes as diverse as physical health, relationships, work and sport performance. These treatments have also been shown to reduce the symptoms of subclinical depression, anxiety and stress (Brown & Ryan, 2004; Schreiner & Malcolm, 2008).

Mindfulness is defined as the ability to be in the present moment, to focus and to be aware of the most basic and simplest of actions, such as breathing and walking (Olson, 2002). Carlson and Garland (2005) conducted a study on the impact of mindfulness-based stress reduction on sleep, mood, stress and

fatigue symptoms in cancer outpatients. The authors report that the results of their study "confirm and strengthen the findings of past research indicating that participation in a Mindfulness-Based Stress Reduction program can have positive benefits for sleep quality, stress symptoms, mood disturbance and fatigue levels" (p. 283). Research indicates that mindfulness treatments result in decreased adverse health symptoms such as arthritis pain and alcoholism and increased longevity (Langer & Moldoveanu, 2000).

Since mindfulness can reduce stress-related symptoms, it is postulated that there is an inverse relationship between mindfulness and burnout. However, research on both constructs has been limited within the South African corporate context.

1.2 Problem Statement

Given that burnout appears to be a type of stress and mindfulness has been proven to reduce stress it is postulated that there may be a correlation between burnout and mindfulness. The research findings presented in the previous section suggest that South African corporate workers may also be vulnerable to burnout. If this is the case, mindfulness meditation training might provide a possible solution to this problem. As was mentioned previously, little research has been conducted on both burnout and mindfulness in the South African context. Due to this one cannot ascertain whether international research findings could be applied to the South African context.

1.3 Research Aims

In order to address the void in South African research regarding burnout and mindfulness, the following aims were formulated:

- To explore the extent of burnout among employees in a South African corporate organisation; and

- To investigate the relationship between burnout and mindfulness in the same population. In order to attain this aim, the following hypotheses were set:

H_o: There is no relationship between mindfulness and burnout among employees in a South African corporate organisation.

H_1: There is a statistically significant relationship between mindfulness and burnout among employees in a South African corporate organisation.

Furthermore, there appears to be no study in South Africa previously that investigated the usefulness of the Oldenburg Burnout Inventory (OLBI) as a Burnout Inventory or of any Mindfulness Inventories within a South African corporate environment. This realisation led to the formulation of an additional aim for this study, namely to determine if the Oldenburg Burnout Inventory (OLBI) and the Mindful Attention Awareness Scale (MAAS) are reliable when used in a South African context.

The process of achieving these aims and the findings of the research will be discussed in the coming chapters. To facilitate easy referencing and to provide coherence to the study, a specific structure will be imposed on the presentation of this study. This structure is presented below.

1.4 Proposed structure of the study

Chapter 1: Introduction
Chapter 2: Literature Review: Burnout
Chapter 3: Literature Review: Mindfulness
Chapter 4: Research Methodology
Chapter 5: Results
Chapter 6: Discussion of Findings, Limitations and Recommendations

1.5 Conclusion

Burnout in the workplace is a phenomenon that is real and pressing. The prevalence of burnout within the South African corporate work place is not currently known. In addition, it is not known whether mindfulness could potentially serve as a buffer against severe burnout. This study aimed to explore the extent of burnout among employees in a South African corporate organisation and to investigate the relationship between burnout and mindfulness in the same population.

The following two chapters provide an overview of the current literature on the constructs of burnout and mindfulness. The role of burnout in the workplace is clarified. Moreover, the scope of mindfulness as a potential treatment is discussed.

CHAPTER 2

LITERATURE REVIEW: BURNOUT

2.1 Introduction

Burnout has become an important aspect of organisational reality for workers worldwide (Halbesleben, 2003). This chapter examines the construct of burnout. The origin and definition of burnout are discussed, and various developmental models are explored. The association between stress and burnout is clarified. The chapter also includes burnout symptoms and consequences, the diagnosis of burnout and burnout interventions.

2.2 Burnout: Origins and definition

Burnout has been likened to a broken car battery that cannot be recharged and loses its power gradually (Schaufeli & Enzmann, 1998). Schaufeli and Enzmann (1998) explore this analogy:

> Indeed, burned-out individuals often describe themselves spontaneously as empty batteries that can no longer be recharged. This analogy to an empty car battery reflects the gradual process in which more energy has been consumed than was produced over a long period of time. A car battery gets empty when more power is used up than is supplied by its dynamo ... That is exactly what happens in burnout: people give too much for too long and receive too little in return. Essentially, burnout is the long-term result of an imbalance between investments and outcomes (p. 1).

The term burnout was adopted by Herbert Freudenberger and first described as a syndrome in his paper entitled "Staff burn-out" (Schaufeli & Enzmann, 1998). Freudenberger (1974) studied burnout from a psychiatric perspective, providing personal and patient accounts of the phenomenon. Freudenberger used the term "burnout", a word that was already being used colloquially to

refer to the effects of chronic drug abuse (Schaufeli, Maslach & Marek, 1993). Maslach (1976), a social psychologist, was researching emotions in the workplace at about the same time and found a similar pattern of emotional exhaustion among poverty lawyers. These lawyers who worked with the poor called their experience of the phenomena burnout (Cordes & Dougherty, 1993). Maslach found that participants in her social psychology research on emotional arousal who did 'people work' of some kind immediately identified with the label and its implications (Schaufeli, Maslach & Marek, 1993). Consequentially, Maslach and subsequent researchers of the phenomenon adopted the term 'burnout'. Burnout is now a recognised term in the modern psychology lexicon.

2.2.1 Burnout in Human Service Occupations

Burnout research has its roots in care-giving and service occupations, in which the core component of the job is the relationship between provider (helper) and recipient (Maslach, Schaufeli & Leiter, 2001). The historical origins of burnout not only influenced its conceptualisation, as being peculiar to service occupations only, but its definition as well. Freudenberger (1974) was the first to define burnout. He defined burnout as a specific psychological condition in which people suffer emotional exhaustion, experience a lack of personal accomplishment and tend to depersonalise others. Maslach (1982) later updated this definition, stating that burnout is "a syndrome of emotional exhaustion, depersonalisation and reduced personal accomplishment that can occur among individuals who do 'people work' of some kind" (p. 3).

The three key dimensions or primary symptoms of this response are (Demerouti, Bakker, Vardakou & Kantas, 2003; Halbesleben & Buckley, 2004; Schaufeli & Van Dierendonck, 1993):

- An overwhelming emotional exhaustion, which represents the basic individual stress dimension of burnout. This involves feelings of being overextended and depleted of emotional and physical resources. Employees who are emotionally exhausted

typically feel that they lack adaptive resources and cannot give any more to their job. The energy that they once had to devote to their work is now depleted, leaving them without the resources to perform their tasks.

- Depersonalisation, which is also referred to as *cynicism* and *disengagement*. This construct represents the interpersonal context dimension of burnout. It often occurs in response to emotional exhaustion and describes a process whereby employees detach from their job and begin to develop callous or uncaring attitudes toward their job, their performance and those associated with the job, such as clients and co-workers.

- Reduced personal accomplishment, which is also known as *personal efficacy*. It refers to diminished perceptions of ability on the job. The employee tends to evaluate him/herself negatively and perceives that he/she cannot perform as well at his/her job as he/she once could.

As a result of the origin of the term most of the initial empirical work on burnout was limited to individuals in human service roles. Researchers assumed that the people most likely to experience the phenomena of burnout would be employed in people-oriented, human service occupations such as health care professionals (Cordes & Dougherty, 1993) and lawyers (Schaufeli, Maslach & Marek, 1993). Consequentially, in the first five years of research, burnout received most attention in the fields of education, social services, medicine, the criminal justice system, mental health and religion (Schaufeli, Maslach & Marek, 1993). A considerable amount of research focused on the relationship between burnout and the role of teachers, nurses and social workers (Halbesleben & Buckley, 2004). Essentially, Maslach's pioneering work on burnout led to the formulation of a definition of burnout that is specific to burnout among workers in human service roles.

2.2.2 Burnout in Non-Service Occupations

Karger (1981) criticised the burnout literature for 'privatising' burnout by restricting the problem to the human services sector. Golembiewski (1986) states that research has extended the concept of burnout into diverse occupations. There is a growing consensus that burnout is a significant problem for employees in both the 'helping professions' (e.g. medical doctors and lawyers) and in other jobs involving a high level of interpersonal contact such as restaurant managers and bank tellers (Golembiewski, 1986). According to Halbesleben and Buckley (2004) a vast number of studies suggest that individuals in many non-service occupations experience burnout. This has led to general agreement that the study of burnout should not be limited to those who perform service work. Research during the past decade has demonstrated that burnout can be observed in virtually any occupational group (Bakker, Demerouti & Schaufeli, 2002). Consequentially, the concept of burnout has quickly expanded to include non-human services occupations (Halbesleben & Demerouti, 2005). Interpersonal interactions form a key construct within the burnout process, therefore it is reasonable to predict that any group experiencing stressful interpersonal interactions at work will be vulnerable to burnout (Cordes, Dougherty & Blum, 1997). Corporate work involves significant levels of interpersonal interactions, across a wide range of situations, with a largely internal 'client' base. It is therefore reasonable to expect that corporate employees will also be vulnerable to burnout.

In response to the growing empirical research and acceptance that burnout can be applied to virtually any occupation, Maslach and her colleagues refined their definition of burnout. Maslach, Schaufeli and Leiter (2001, p. 399) state that burnout is job related and defined burnout as "a psychological syndrome in response to chronic interpersonal stressors on the job". The three key dimensions or symptoms of burnout are: exhaustion, cynicism and professional inefficacy.

Subsequently, Demerouti and her colleagues formulated a more contemporary definition of burnout. This definition is based on an empirically

comprehensive examination of the burnout construct. Demerouti, Bakker, Nachreiner and Ebbinghaus (2002, p. 428) conceptualise burnout as "a syndrome of work-related negative experiences, including feelings of *exhaustion* and *disengagement* from work".

2.2.2.1 Exhaustion

Demerouti et al. (2002) conceptualise *exhaustion* as a consequence of prolonged and intense physical, affective and cognitive strain. Exhaustion is the result of prolonged exposure to specific working conditions (or stressors). In contrast to Maslach's conceptualisation of exhaustion described above, this definition sees exhaustion as going beyond affective (i.e. emotionally drained) exhaustion. It also covers the physical and cognitive aspects of exhaustion (e.g. need for long resting time). This conceptualisation of the burnout construct is more applicable to workers who perform physical work, and to workers whose job is mainly about processing information instead of dealing with people (Demerouti et al., 2002).

2.2.2.2 Disengagement

On the other hand, disengagement involves distancing oneself from one's work and experiencing negative attitudes toward the work object, work content or work in general (Demerouti et al., 2003). Essentially, disengagement includes a devaluation and mechanical execution of one's work. People experiencing disengagement may refer to their work as uninteresting, no longer challenging and even 'disgusting'. The concept of disengagement moves beyond Maslach's conceptualisation of cynicism, which restricts itself to measuring an indifference or distant attitude towards work (e.g. I am indifferent towards my work; I doubt the significance of my work). Cynicism does not include or exclude references to personal relationships at work (Leiter & Schaufeli, 1996). Demerouti et al. (2002) draw on Freudenberger's (1974) characterisation of disengagement. Freudenberger (1974) asserts that disengagement represents an extensive

and intensive reaction in terms of an emotional, cognitive and behavioural rejection of the job and it delineates an occupational disillusionment.

An appraisal of the current burnout literature suggests that Demerouti et al.'s (2002) conceptualisation of burnout is much more inclusive and far-reaching than that of Maslach. This suggests that burnout consists of a cluster of symptoms (this is discussed in section 2.5) and manifests on a continuum ranging from engagement to exhaustion. In order to understand burnout further it is important to place it within a theoretical framework. In the section below, developmental models of burnout are discussed.

2.3 Developmental Models of Burnout

After the first European Conference on Professional Burnout, Schaufeli et al. (1993) suggested that a comprehensive theory of burnout had yet to be developed. Several developmental models of burnout have been outlined since then. However, Schaufeli and Buunk (2003), insist that a comprehensive theoretical framework is still lacking. Nevertheless, in their endeavours to produce a 'grand theory' researchers have tendered numerous theories. These theories have been reviewed by Schaufeli and Enzmann (1998). These authors note that three recurrent themes appear in many approaches that attempt to explain burnout:

- A strong initial motivation is a necessary condition for developing burnout;
- Burnout is associated with an unfavourable job environment; and
- The burnout process is self-perpetuating because of the use of inadequate coping strategies.

Pines (1993) presents the existential model of burnout. This model is motivational in nature. The underlying assumption in this model is that only highly motivated individuals can burnout. It proposes that in order to burnout, one has to first be 'on fire'. The model contends that a person without this

initial motivation can experience stress, alienation, depression, an existential crisis or fatigue, but not burnout. Maslach et al. (2001), explain that a motivated individual ends up doing too much in support of his/her ideals. This leads to exhaustion and eventually cynicism when the individual's sacrifice has not been sufficient to achieve his/her goals. The literature on burnout agrees that a strong, initial motivation is a necessary condition for developing burnout (Schaufeli & Enzmann, 1998). Two models of burnout that share this common factor are the Job-Person Mismatch model and the Job Demand-Resources (JD-R) model. In the Job-Person Mismatch approach highly motivated individuals progressively become frustrated and feel exhausted because intentions do not match reality. In the JD-R model a motivational process is assumed, in which deficient resources hamper dealing effectively with job demands and foster disengagement from the job. Maslach's Job-Person Mismatch model is based on a person-environment fit in the context of stress (Halbesleben & Buckley, 2004), whilst the JD-R model is essentially a model of occupational stress (Lenthall et al., 2009). These two models are discussed below.

2.3.1 Job-Person Mismatch Model

Maslach et al. (2001) suggest the Job-Person Mismatch model as an appropriate framework for understanding burnout. The model suggests that when a person has been working for a while and is experiencing a chronic misfit between the self and the job, burnout can occur. Maslach and Leiter (1997) formulated a model that focuses on the degree of match, or mismatch, between the person and six domains of his/her job environment. These six areas of worklife come together in a framework that encompasses the major organisational antecedents of burnout: workload, control, reward, community, fairness and values (Maslach et al., 2001).

2.3.1.1 Workload

A mismatch in workload is generally defined as excessive overload. This is calculated by the simple formula that too many demands exhaust an individual's energy to the extent that recovery becomes impossible.

2.3.1.2 Control

Most often mismatches in control indicate that individuals have insufficient control over the resources needed to do their work. They might also have insufficient authority to pursue the work in what they believe is the most efficient manner. For example, an employee could say, 'Management always second-guesses me and overrides my decisions'.

2.3.1.3 Reward

A lack of appropriate rewards refers to an individual experiencing inequity regarding:

- Financial rewards (i.e. not receiving the salary or benefits commensurate with their achievements);
- Social rewards (i.e. hard work is ignored and/or not appreciated by others); and even
- Intrinsic rewards (i.e. pride in doing something of importance and doing it well).

2.3.1.4 Community

When people lose a sense of positive connection with others in the workplace it can result in inadequate emotional exchange and instrumental assistance. Furthermore, chronic and unresolved conflict with others on the job can produce negative feelings of frustration and hostility and reduces the likelihood of social support in the workplace.

2.3.1.5 Fairness

Fairness communicates respect between the organisation and employees and confirms people's self-worth. Unfairness can occur when there is inequity in workload or pay, when there is cheating or when evaluations and promotions are handled inappropriately. Unfairness can be experienced as emotionally upsetting and exhausting. As a result, a sense of cynicism about the workplace is fuelled.

2.3.1.6 Values

In some cases, people might feel constrained by the job to do things that are unethical and not in accordance with their own values. This could involve having to deceive others. It could also mean experiencing incongruence between the organisation's ideals and its actual practice.

Hogan and McKnight (2007) note that the presence of any one of these six major influences on burnout can cause an individual to display symptoms of burnout. Maslach and Leiter (1997) propose that the greater the mismatch between an employee and his/her job, the greater the likelihood of burnout. According to Maslach et al. (2001), research on this model is beginning to explore the relationship between these six areas, as well as their relation to the three dimensions of burnout used in burnout testing. Significantly, Maslach and Leiter's (1997) research suggests that despite common underlying organisational stressors, people react differently to burnout. This is the result of personal attributes (such as personality and attribution style) that facilitate their fit (more or less) with their environment (Halbesleben & Buckley, 2004).

As stated previously, Maslach (1982) describes three dimensions of burnout. These dimensions are emotional exhaustion, depersonalisation and reduced personal accomplishment. A description of the Job-Person Match model is included in this literature review because the most popular instrument to assess burnout, the Maslach Burnout Inventory (MBI) (Schaufeli & Van

Dierendonck, 1993), is empirically connected to this model. This inventory is discussed in detail in chapter 4 of this research. Use of the MBI implies acceptance of the definition provided by the inventory's authors (Schaufeli, Enzmann & Girault, 1993).

Maslach is a pioneer in burnout research, and much of the subsequent research on burnout is based on these initial postulations and research findings. Demerouti's development of the Oldenburg Burnout Inventory (OLBI) as an improvement on the MBI is a case in point. This inventory will also be discussed in chapter 4. Bakker and Demerouti (2007) developed a model of burnout that can be used as a tool for human resource management. This model, the Job Demands-Resources (JD-R) model, has now been used in over 130 different organisations in The Netherlands (Bakker & Demerouti, 2007).

2.3.2 The Job Demands-Resources Model (JD-R Model)

The Job Demands-Resources (JD-R) model (Bakker & Demerouti, 2007; Demerouti, Bakker, Nachreiner & Schaufeli, 2001) is based on the assumption that job stress risk factors can be classified into two general categories, namely job demands and job resources. However, every occupation has its own specific risk factors associated with job stress. The interaction between job demands and job resources provides and constitutes an overarching model that can be applied to various occupational settings. This is assumed to be true irrespective of the particular demands and resources involved.

Job demands are those aspects of the job that require effort and as a result are associated with physiological and psychological costs such as burnout. Job resources refer to the physical, psychological, social or organisational characteristics of the job that assist in achieving work goals, reducing job demands and stimulating personal growth. Job resources may be located at (Bakker & Demerouti, 2007):

- The level of the organisation at large (e.g. pay, career opportunities and job security);
- The interpersonal and social relations level (e.g. the team climate and supervisor and co-worker support);
- The organisation of work (e.g. role clarity and participation in decision making); and
- The level of the task (e.g. skill variety, task identity, task significance, autonomy and performance feedback).

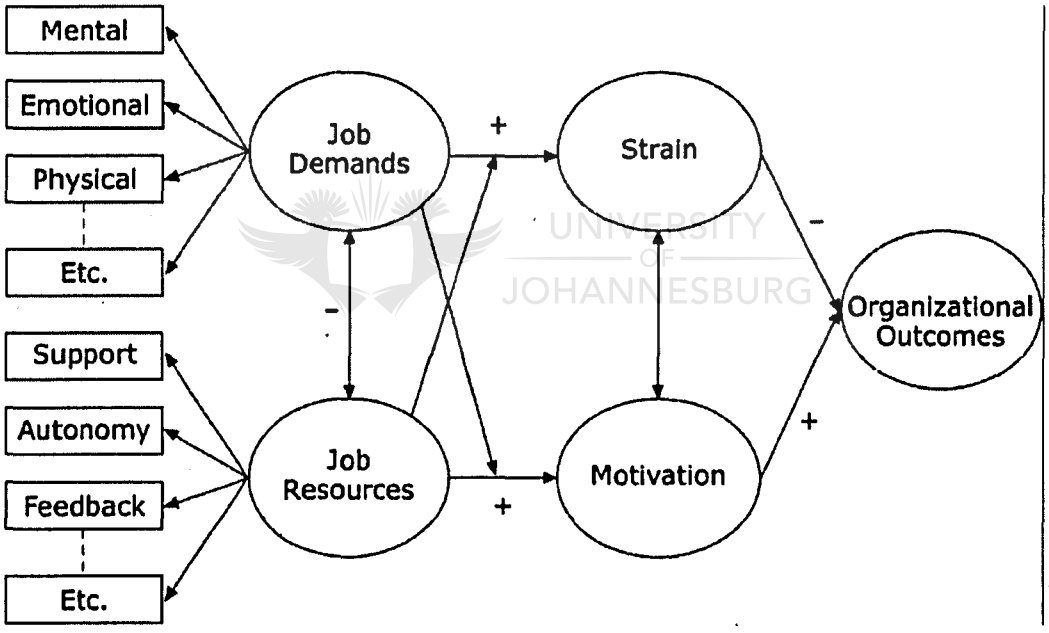
The JD-R model further assumes that two different underlying psychological processes play a role in the development of job strain and motivation:

i. Health impairment process: poorly designed jobs or chronic job demands (e.g. work overload) exhaust employees' mental and physical resources. This may lead to the depletion of energy (i.e. a state of exhaustion) and to health problems.
ii. Motivational process: job resources have motivational potential and lead to high work engagement, low cynicism and excellent performance. Job resources may play an intrinsic motivational role by fostering employees' personal growth, learning and development. They may also play an extrinsic motivational role because they are instrumental in achieving work goals.

The JD-R model suggests that the presence of job resources leads to engagement and their absence evokes a cynical attitude towards work (Bakker & Demerouti, 2007). The model further proposes that the interaction between job demands (e.g. role conflict) and job resources (e.g. a clear job description) is important for the development of job strain and motivation. The JD-R model specifically suggests that job resources (e.g. co-worker support) may buffer the impact of job demands (e.g. production deadlines) on job strain. Haines, Hurlbert and Zimmer (1991) note that social support (e.g. team climate) is probably the most well known situational variable that has been proposed as a potential buffer against job strain.

The JD-R model postulates that job resources have a particular influence on motivation or work engagement when job demands are high (Bakker & Demerouti, 2007). In a South African study of psychiatric nurses Levert, Lucas and Ortlepp (2000) found that burnout is related to job demands. The authors further reported that emotional exhaustion and depersonalisation were predicted by workload, role conflict, lack of collegial support and role ambiguity (Levert et al., 2000). Demerouti et al. (2001) assert that job demands are associated with exhaustion and job resources are inversely associated with disengagement. Figure 2.1 illustrates this model.

Figure 2.1 The Job Demands-Resources (JD-R) Model
From: "The job demands-resources model: state of the art" by A.B. Bakker and E. Demerouti, (2007), *Journal of Managerial Psychology, 22*(3), p. 313.



The JD-R model served as an overarching theoretical framework for the present study. This model was used to theoretically contextualise the results produced by the burnout-testing instrument, the Oldenburg Burnout Inventory (OLBI), utilised in the study. Both the JD-R model and the OLBI are theoretically based on the assumption that burnout exists on a continuum ranging from engagement (having sufficient resources) to exhaustion (having overwhelming job demands). Furthermore, exhaustion is the central quality of burnout and the most obvious manifestation of this complex syndrome

(Maslach et al., 2001). Job demands have a positive impact on exhaustion and job resources have a negative impact on disengagement (Demerouti, Bakker, Nachreiner & Schaufeli, 2000).

However, other models were also used in the study. This study was premised on the assumption that chronic stress leads to burnout. Since mindfulness (to be discussed in chapter 3) is a proven treatment for stress (Kabat-Zinn, 1982; 2008; Schreiner & Malcolm, 2008), burnout can potentially be addressed using mindfulness. The next section focuses on the relationship between stress and burnout.

2.4 Stress and Burnout

The literature is replete with evidence that job stress can be harmful to well-being and overall mental and physical health (Shapiro, Astin, Bishop & Cordova, 2005). Studies have revealed that chronic stress can lead to depression (Hammen, Kim, Eberhart & Brennan, 2009), reduced job satisfaction (Boswell, 1992), compromised decision making skills (Harris, Hancock & Harris, 2005), suicide (Ritchings, Khara & McDowall, 1986) and burnout (Mitani, Fujita, Nakata & Shirakawa, 2006).

Psychological stress is the negative emotional and cognitive state that occurs when individuals believe the demands placed on them surpass their ability to cope (Lazarus & Folkman, 1984). What this means is that negative stress may occur if an individual feels that he/she is unable to adapt to his/her situation. When job demands are too high stress reactions are likely to occur (Schaufeli & Enzmann, 1998). Burnout, as a form of work-related strain, is the result of a significant accumulation of work-related stress (Halbesleben & Buckley, 2004). Burnout is considered to be a special type of prolonged occupational stress that results particularly from interpersonal demands at work (Schaufeli & Enzmann, 1998).

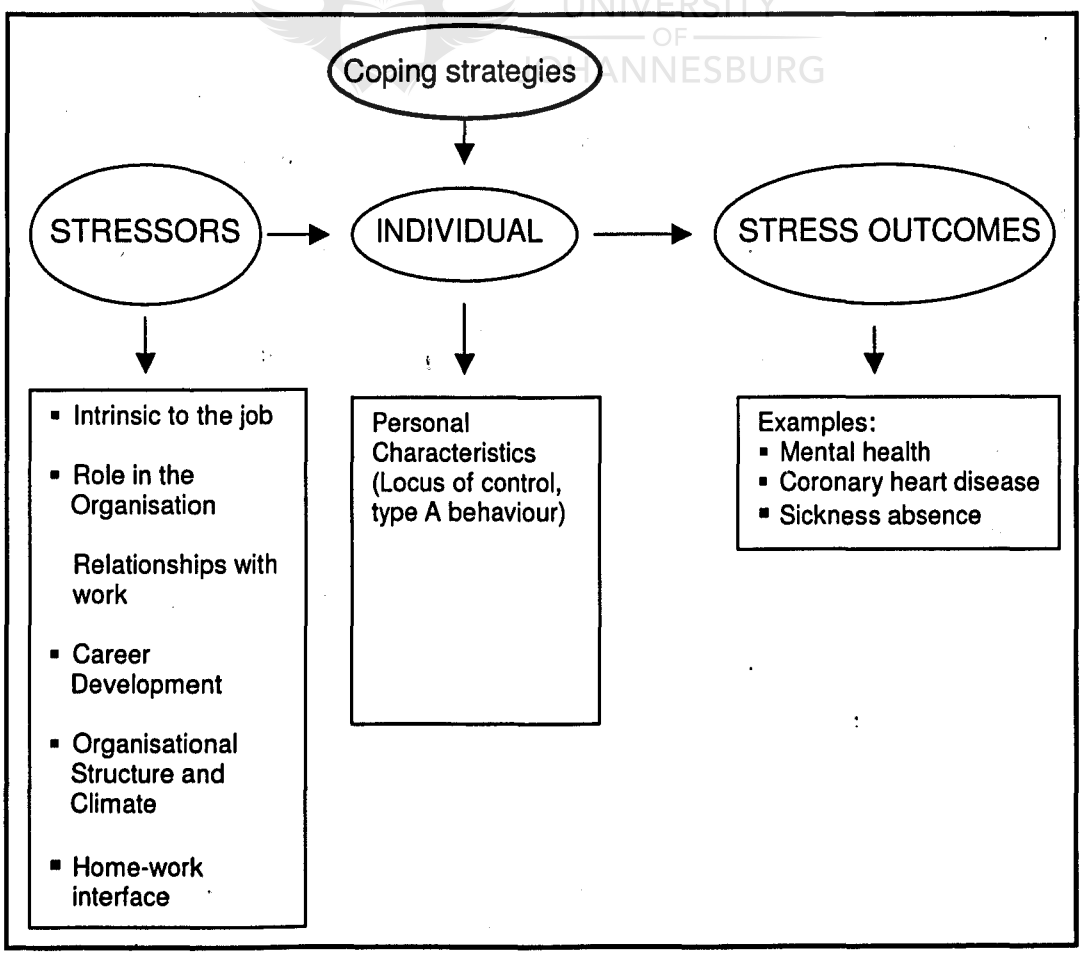
Pines, Aronson and Kafry (1981) envision burnout as a response to stress in which there is not only a low sense of accomplishment and fatigue, but also a

sense of helplessness, hopelessness and entrapment. Cherniss (1980) also views burnout as a response to stress. His developmental model of burnout suggests that burnout is the last stage of a failed coping process. This final stage is seen as a defensive posture meant to halt more precipitous effects of stress. Rushton (1987) describes burnout as the "last stage of stress" (p. 177).

Sources of occupational stress or 'stressors' have been categorised by Cooper and Marshall (1976) as: intrinsic to the job; role in the organisation; relationships at work; career development; organisational structure and climate and home-work interface. Clarke and Cooper (2000) provide an abridged version of Cooper and Marshall's (1976) occupational stress model. The authors' model is illustrated in Figure 2.2.

Figure 2.2 The Occupational Stress Model

From: "The risk management of occupational stress" by S.G. Clarke and C.L. Cooper, 2000, *Health, Risk & Society*, 2(2), p. 175.



Intrinsic job stressors can include physical (e.g. lighting) and psychosocial (e.g. workload) aspects of the working environment. These aspects vary in importance depending on the job. The structure and climate of the organisation can also be a source of stress. Organisational sources of stress include management style and organisational politics. If stress is not handled appropriately low job satisfaction, poor work performance and negative health effects may occur (Bromet, Dew, Parkinson & Cohen, 1992; Morris & Long, 2002). Hayes and Weathington (2007) note that employers can help alleviate stress by curbing work overload and providing needed resources. However, stress management (e.g. meditation, time management and physical exercise) by employees can also be beneficial. Therefore, it is important to both individuals and organisations that employees find ways of approaching and managing the stressful situations they encounter.

The National Institute for Occupational Safety and Health (NIOSH, 2002) affirms that job stress has become a common and costly problem in the workplace. NIOSH has listed several high stress occupations. These occupations include labourers, secretaries and individuals in various health-related professions. Individuals in these professions face new and uncertain challenges each day, and much of the stress that occurs is the result of lack of control over day-to-day situations (Fisher, 1985; Sauter, Hurrell & Cooper, 1989). NIOSH (2002) also lists managerial work as a highly stressful occupation. Managers generally experience job-related stress as a result of work overload (Glowinkowski & Cooper, 1986).

2.5 Burnout: Symptoms and Consequences

Cordes et al. (1997) conclude that burnout is a developmental process. There is no on-off switch, no clearly defined moment at which an employee announces 'I am burned out'. Instead, burnout is a gradual eroding process. Therefore, organisations that want to address the problem need to know what to be on the lookout for. For example, if evidence of emotional exhaustion is indicative of developing burnout, then one set of ameliorative efforts may be called for. It is known that emotional exhaustion is directly related to high

levels of work demand (Shirom, 1989). Therefore, emotional exhaustion reflects employees' experience of organisational and personal demands (Cordes et al., 1997). For example, individuals with insufficient time and manpower at work may expend an excessive amount of emotional energy. These individuals may use their time inefficiently attempting to maintain performance standards, thereby leading to emotional exhaustion. However, if depersonalisation is the earliest visible component of burnout, then alternative efforts may be more effective. This illustrates that recognising the symptoms of burnout and understanding its process will enable employees and managers to effectively adapt to the changing environment.

Schaufeli and Enzmann (1998) list more than 130 symptoms of burnout. Most of these symptoms relate to uncontrolled clinical observations or from interview studies with an impressionistic or unspecified analysis of data. It would be preferable if these symptoms were sourced from rigorously designed and thoroughly conducted quantitative studies. Nevertheless, Schaufeli and Enzmann's (1998) symptom list is distilled from a number of other studies of the burnout syndrome, case histories (Beemsterboer & Baum, 1984; Einsiedel & Tully, 1982; Freudenberger, 1974; Maher, 1983; Paine, 1982) and reviews of the burnout literature (Cordes & Dougerthy, 1993; Kahill, 1988). This categorisation of symptoms is listed in Tables 2.1. – 2.3. The symptom classification follows the common psychological model of classifying symptoms into affective, cognitive, physical, behavioural and motivational clusters. These clusters of psychological symptoms can manifest as individual symptoms, as symptoms in the individual's interpersonal relations and even as symptoms in the individual's organisational context. Consequentially, Schaufeli and Enzmann (1998) distinguish three levels within the symptoms, as burnout typically includes not only individual symptoms, but also symptoms at the interpersonal and organisational levels.

TABLE 2.1 Possible Burnout Symptoms: Symptoms at Individual Level

From: *The burnout companion to study and practice: a critical analysis*, p. 21-22, by W. Schaufeli and D. Enzmann, 1998, London: Taylor & Francis Ltd.

SYMPTOMS AT INDIVIDUAL LEVEL				
Affective	**Cognitive**	**Physical**	**Behavioural**	**Motivational**
Depressed mood	Helplessness	Headaches	Hyperactivity	Loss of zeal
Tearfulness	Loss of meaning and hope	Nausea	Impulsivity	Loss of idealism
Emotional exhaustion	Fear of 'going crazy'	Dizziness	Procrastination	Disillusionment
Changing moods	Feelings of powerlessness and impotence	Restlessness	Increased consumption of: caffeine, tobacco, alcohol, tranquillisers, illicit drugs	Resignation
Decreased emotional control	Feelings of being 'trapped'	Nervous tics	Over- and under-eating	Disappointment
Undefined fears	Sense of failure	Muscle pains	High risk-taking behaviours (e.g. skydiving)	Boredom
Increased tension	Feelings of insufficiency	Sexual problems	Increased accidents	Demoralisation
Anxiety	Poor self-esteem	Sleep disturbances (insomnia, nightmares, excessive sleeping)	Abandonment of recreational activities	
	Self-preoccupation	Sudden loss or gains of weight	Compulsive complaining	
	Guilt	Loss of appetite		
	Suicidal ideas	Shortness of breath		

TABLE 2.1 Possible Burnout Symptoms: Symptoms at Individual Level (continued)

From: *The burnout companion to study and practice: a critical analysis*, p. 21-22, by W. Schaufeli and D. Enzmann, 1998, London: Taylor & Francis Ltd.

SYMPTOMS AT INDIVIDUAL LEVEL				
Affective	***Cognitive***	***Physical***	***Behavioural***	***Motivational***
	Inability to concentrate	Increased pre-menstrual tension		
	Forgetfulness	Missed menstrual cycles		
	Difficulty with complex tasks	Chronic fatigue		
	Rigidity and schematic thinking	Physical exhaustion		
	Difficulties in decision making	Hyperventilation		
	Daydreaming and fantasising	Bodily weakness		
	Intellectualisation	Ulcers		
	Loneliness	Gastric-intestinal disorders		
	Diminished frustration tolerance	Coronary diseases		
		Frequent and prolonged colds		
		Flare-ups of pre-existing disorders (asthma, diabetes)		
		Injuries from risk-taking behaviour		
		Increased heart rate		
		High blood pressure		
		Increased electrodermal response		
		High level of serum cholesterol		

TABLE 2.2 Possible Burnout Symptoms: Symptoms at Interpersonal Level

From: *The burnout companion to study and practice: a critical analysis*, p. 23, by W. Schaufeli and D. Enzmann, 1998, London: Taylor & Francis Ltd.

SYMPTOMS AT INTERPERSONAL LEVEL				
Affective	**Cognitive**	**Physical**	**Behavioural**	**Motivational**
Irritability	Cynical and dehumanising perception of recipients*		Violent outbursts	Loss of interest
Being oversensitive	Negativism with respect to recipients		Propensity for violent and aggressive behaviour	Discouragement
Cool and unemotional			Aggressiveness towards recipients	Indifference with respect to recipients
Lessened emotional empathy with recipients	Pessimism with respect to recipients		Interpersonal, marital and family conflicts	Using recipients to meet personal and social needs
Increased anger	Lessened cognitive empathy with recipients		Social isolation and withdrawal	Overinvolvement
	Stereotyping of recipients		Detachment with respect to recipients	
	Labelling recipients in derogatory ways		Responding to recipients in a mechanical manner	
	'Blaming the victim'		Isolation or over-bonding from other staff	
	Air of grandiosity		Sick humour aimed at recipients	
	Air of righteousness		Expression of hopelessness, helplessness and meaninglessness towards recipients	
	'Martyrdom'		Using distancing devices	
	Hostility		Jealousy	
	Suspicion		Compartmentalisation	
	Projection			
	Paranoia			

* Recipients: those that receive any kind of service from the supplier (i.e. the individual experiencing symptoms of burnout)

TABLE 2.3 Possible Burnout Symptoms: Symptoms at Organisational Level

From: *The burnout companion to study and practice: a critical analysis*, p. 24, by W. Schaufeli and D. Enzmann, 1998, London: Taylor & Francis Ltd.

SYMPTOMS AT ORGANISATIONAL LEVEL				
Affective	**Cognitive**	**Physical**	**Behavioural**	**Motivational**
Job satisfaction	Cynicism about work role		Reduced effectiveness	Loss of work motivation
	Feelings of not being appreciated		Poor work performance	Resistance to go to work
	Distrust in management, peers and supervisors		Declined productivity	Dampening of work initiative
			Tardiness	Low morale
			Turnover	
			Increased sick-leave	
			Absenteeism	
			Theft	
			Resistance to change	
			Being over-dependent on supervisors	
			Frequent clock watching	
			'Going by the book'	
			Increased accidents	
			Inability to organise	
			Poor time management	

Other researchers have noted numerous other symptoms and consequences of burnout. Toppin-Tanner, Ojajärvi, Väänäen, Kalimo and Jäppinen (2005) found a relationship between burnout and risk of future absence due to mental and behavioural disorders and diseases of the musculoskeletal system. Baba, Galperin and Lituchy (1999) conducted a study of work-related depression among 119 nurses in the Caribbean. The study looked at role, work and social factors, stress, burnout, depression, absenteeism and turnover intention. The authors found that burnout was the sole predictor of depression, which in turn predicted both absenteeism and turnover intention.

Miller and Bor (1988) found that burnout in the workplace results in an increase in general inefficiency. The study found that burned out staff come late for meetings, have low morale, are short-tempered, are less capable of effective and efficient work and have compromised work-related decision making abilities. Miller and Bor (1988) suggest that burnout is likely to arise when there is a discrepancy between the demands of the job and the ability of staff to fulfil the demands. Staff are unable to fulfil demands for various reasons. A further dilemma for staff is that when they conduct emotionally burdensome and/or confidential work they feel they cannot talk to family and friends about work related issues. This conduct results in an important source of support being unavailable, which inevitably fans the flames of burnout.

Kahill (1988) conducted a study on the immediate consequences of burnout in human service professionals. The author found empirical evidence that shows that burnout often leads to poor physical health, depression, turnover, unproductive work behaviours, problematic interpersonal relations and reduced job satisfaction. Kahill (1988) also recorded that physical health problems such as fatigue, insomnia, headaches and gastrointestinal disturbances were linked to burnout. Two separate research studies found self-esteem to be negatively related to burnout (Golembiewski & Kim, 1989; Rosse et al., 1991). Furthermore, Maslach and Jackson (1986) suggest that burnout can lead to deterioration in the quality and care of service that is provided by staff. They further demonstrate that burnout correlates with various self-reported indices of personal dysfunction, increased use of alcohol

and drugs and marital and family problems. In this vein, Burke and Greenglass (2001) found evidence that burnout has a negative runoff effect on people's home life.

Ryan (1990) lists somatic complaints related to burnout. These complaints include insomnia, headaches, backaches or stomach problems, more frequent use of alcohol, drugs, tobacco or food, finding it increasingly difficult to empathise with clients, reluctance to socialise, unwillingness to get out of bed or go to work and the realisation that most time is spent working. Kahill (1988) asserts that symptoms of burnout could include practically any imaginable sign of psychological distress. This profusion of symptoms may be related to the generalised psychological distress reaction that is necessarily experienced by individuals who are considered to be, or who consider themselves to be, 'burned out'. Pines (1993) reports that burnout symptoms include, but are not limited to, fatigue, poor self-esteem, inability to concentrate on a subject and a tendency to blame others.

People who are experiencing burnout can have a negative impact on their colleagues, both by causing greater personal conflict and by disrupting job tasks. Thus, burnout can be 'contagious' and perpetuate itself through informal interactions on the job (Maslach et al., 2001). Dubrin (1990) notes that managers suffering from burnout can hurt the organisation because they spread burnout symptoms to their subordinates. In a study on intensive care nurses, Bakker, Le Blanc and Schaufeli (2005) confirmed that burnout is contagious. Unfortunately, this study was not designed to reveal the precise processes responsible for burnout contagion.

However, Bakker at al. (2005) speculate that burnout was communicated from one nurse to another through both conscious and unconscious means. Unconscious communication might involve nurses becoming emotionally exhausted as a result of automatically mimicking the emotions and behaviours expressed by their colleagues. It is conceivable that these nurses 'caught' their colleagues' burnout symptoms unconsciously during their frequent interactions, in which they imitated other nurses' physical expressions of

emotional exhaustion and physical fatigue. A second possibility is that burnout contagion occurred consciously. This could have occurred in numerous ways. For example, ICU nurses frequently discuss the health status of their patients with each other, or often socialize with one another during or after work. In these situations, the attitudes and emotions of one nurse may be transmitted to another. Nevertheless, further research is needed to investigate how professionals catch their colleagues' burnout symptoms.

The above discussion clearly illustrates the vast number of possible symptoms of burnout. However, merely listing all possible symptoms of burnout is not enough to arrive at an adequate diagnosis. With this in mind, a possible diagnosis of burnout is discussed in the next section.

2.6 Clinical diagnosis of burnout

Burnout is not currently recognised as an official diagnosis. Diagnostic criteria are specified for mental disorders and these criteria are used as guidelines when diagnosing. The use of such criteria enhances agreement among clinicians and investigators regarding the existence of a mental disorder (APA, 2000). Two internationally recognised and accepted psychiatric classification and diagnosis systems exist. These systems are:

- The Diagnostic and Statistical Manual of Mental Disorders (DSM), developed by the American Psychiatric Association in collaboration with other groups of mental health professionals; and
- The International Classification of Diseases (ICD) developed by the World Health Organisation.

The text revision of the fourth edition of DSM (DSM-IV-TR) was designed to correspond to the 10th revision of the International Classification of Diseases and Related Health Problems (ICD-10) (Sadock & Sadock, 2003). The ICD-10 was developed in 1992. In many countries including South Africa Medicare requires that billing codes for reimbursement follow ICD-10 codes.

Although the DSM-IV-TR does not include a specific category for burnout, [1]Bibeau et al. (cited in Schaufeli & Enzmann, 1998) argue that the psychological condition of burnout is included in the subcategory of adjustment disorders. According to Sadock and Sadock (2003) the diagnostic criteria for adjustment disorders involves the development of emotional or behavioural symptoms in response to an identifiable stressor(s), occurring within three months of the onset of the stressor(s). These symptoms or behaviours are clinically significant as evidenced by either of the following: (1) marked distress that is in excess of what would be expected from exposure to the stressor and (2) significant impairment in social or occupational (academic) functioning. The condition is considered to be acute if the disturbance lasts less than six months and chronic if the disturbance lasts for six months or longer.

Bibeau et al. (cited in Schaufeli & Enzmann, 1998) propose subjective and objective diagnostic criteria for burnout as well as exclusion criteria for the diagnosis of burnout. These criteria are presented in Table 2.4. The principal subjective indicator for burnout is a general state of severe fatigue. The principal objective indicator is a significant decrease in work performance over a period of several months. This decrease in work performance must be observable in relation to several criteria listed in Table 2.4. Bibeau et al. (cited in Schaufeli & Enzmann, 1998) also suggest four exclusion criteria (that the above mentioned subjective and objective indicators of burnout should not result from) that allow for a differential diagnosis.

[1] The original Bibeau et al. work is in French. Bibeau et al. was cited by Schaufeli and Enzmann (1998) and Schaufeli, Maslach and Marek (1993) referenced in section 2.6. The original French source is as follows: Bibeau, G., Dussault, G., Larouche, L.M., Lippel, K., Saucier, J.F., Vézina, M. & Vidal, J.M. (1989). Certains aspects culturels, diagnostiques et juridiques de burnout [Some cultural, diagnostic and juridical aspects of burnout]. Montréal: Confédération des Syndicats Nationaux.

TABLE 2.4 Diagnostic Criteria for Work-Related Adjustment Disorder

Table compiled from *The burnout companion to study and practice: a critical analysis*, p. 55-56, by W. Schaufeli and D. Enzmann, 1998, London: Taylor & Francis Ltd. AND Historical and conceptual development of burnout, p. 15-16, by C. Maslach and W.B. Schaufeli, 1993. In W.B. Schaufeli, C. Maslach & T. Marek (Eds.), *Professional burnout: Recent developments in theory and research (pp. 1-16).* Washington, DC: Taylor & Francis.

Diagnostic Criteria For Work-Related Adjustment Disorder
Principal Subjective Indicators
▪ Loss of self-esteem resulting from a feeling of professional incompetence and job satisfaction ▪ Multiple physical symptoms of distress without identifiable organic illness ▪ Problems in concentration, irritability and negativism
Principal Objective Indicators
▪ Recipients (who receive services of lesser quality) ▪ Supervisors (who observe decreasing effectiveness, absenteeism, etc.) ▪ Colleagues (who observe a general loss of interest in work-related issues).
Criteria Of Exclusion
▪ Sheer incompetence (this means that the person has to have performed well in the job for a significant period) ▪ Major psychopathology ▪ Family-related problems ▪ Severe fatigue (resulting from monotonous work or a big workload; this is excluded because this is not necessarily accompanied by feelings of incompetence or lowered productivity)

The DSM has been revised since Bibeau et al. (cited in Schaufeli & Enzmann, 1998) commented on the classification of burnout, and the category of burnout

would now be included in the DSM-IV-TR subcategory 'adjustment disorder unspecified'. This is a category for atypical maladaptive reactions to stress (Sadock & Sadock, 2003). Included in maladaptive unspecified reactions are physical complaints, social withdrawal and even work or academic inhibition (APA, 2000).

Although Bibeau et al. (cited in Schaufeli & Enzmann, 1998) offer a sound argument for their proposed classification, it is not without criticism. Schaufeli and Enzmann (1998) extend the following objections:

- No preconditions such as frustrated intentions are specified;
- The self-perpetuating nature of burnout is not considered;
- Adjustment disorders under the DSM occur by definition as a more or less immediate response to an identifiable stressor; and
- Burnout, by its very nature, is not a short-term response to a clearly identifiable stressor that dissolves after 6 months.

Schaufeli and Enzmann (1998) have also suggested a potential classification for burnout. The authors suggest that the ICD-10 Neurasthenia diagnostic label be used. This diagnosis is conditional of the condition being work related. Table 2.5 outlines the diagnostic criteria for neurasthenia.

TABLE 2.5 Diagnostic Criteria for Neurasthenia

From: *Synopsis of Psychiatry* (9th ed), p. *665*, by B.J. Sadock and V.A. Sadock, 2003, Philadelphia: Lippincott Williams and Wilkins.

Diagnostic Criteria for Neurasthenia
Either of the following must be present: • Persistent and distressing complaints of feelings of exhaustion after a minor mental effort (such as performing or attempting to perform everyday tasks that do not require unusual mental effort) • Persistent and distressing complaints of feelings of fatigue and bodily weakness after minor physical effort
At least one of the following symptoms must be present: • Feelings of muscular aches and pains • Dizziness • Tension headaches • Sleep disturbances • Inability to relax • Irritability
The patient is unable to recover from the symptoms by means of rest, relaxation or entertainment
The duration of the disorder is at least 3 months
The criteria for any more specific disorders do not apply

Schaufeli and Enzmann (1998) argue that the diagnostic criteria for Neurasthenia reflect, to a large extent, the symptoms of burnout. However, the diagnostic criteria do not identify preconditions and dysfunctional attitudes and behaviours at work, as well as a sense of reduced effectiveness, are not included. This is due to the diagnostic condition of Neurasthenia not being context specific. Schaufeli and Enzmann (1998) suggest that it is necessary to add the criterion of work-relatedness, so that work-related Neurasthenia may be considered the most appropriate formal psychiatric label for burnout. The authors suggest that this label is more appropriate than the DSM Adjustment Disorder as it recognises the chronic nature of burnout. Rothmann (2003) also suggests that since burnout is not included in the DSM-IV classification, the ICD-10 Neurasthenia label can be used.

In the light of the current literature, it is suggested that Neurasthenia (as identified by ICD-10) is a more appropriate classification for the burnout syndrome than one of the Adjustment Disorder (as identified by DSM-IV). The reasons for this suggestion are discussed below.

Firstly, according to Sadock and Sadock (2003) the term Neurasthenia means "nervous exhaustion" (p. 664). According to Sadock and Sadock (2003) the term was conceived by George Beard, who originally applied it to a condition characterised by chronic fatigue and disability. The chronic fatigue is stress related, and may be due to overwork (Sadock & Sadock, 2003). In addition Sharkey and Sharples (2003) state that burnout is the most often-noted consequence of chronic stress in the workplace. Secondly, Sadock and Sadock (2003) point out that Neurasthenia is an accepted condition in Europe and Asia, where it is characterised by fatigue, headache, insomnia and other vague somatic complaints. These cultures consider Neurasthenia to be the result of chronic stress. In many cultures (especially Chinese culture), in which persons resist being categorised as having a mental disorder, Neurasthenia is a preferred diagnosis. It is assumed that it would be easier for an individual to disclose that he/she suffers from work-related nervous exhaustion than some other potentially stigmatising psychiatric label. Consequently, the disorder is most commonly diagnosed in eastern Asia. Essentially, this disorder is a prime example of cultural differences influencing the classification and manifestations of diseases. This suggests that cultural influences may account for the current limited use of the diagnosis in the global arena.

Finally, the ICD-10 identifies two types of the disorder, with substantial overlap between the types. In one type, the main feature is increased fatigue after mental effort, often associated with some decrease in occupational performance or coping efficiency in daily tasks. The other type emphasises feelings of bodily or physical weakness and exhaustion after only minimal effort, accompanied by muscular aches and pains and an inability to relax. These two types provide comprehensive cover for the myriad possible symptoms characteristic of the burnout syndrome.

The DSM-IV-TR does provide an alternative classification for the ICD-10's Neurasthenia. According to the DSM-IV-TR classification, Neurasthenia may be classified as Undifferentiated Somatoform Disorder. Undifferentiated Somatoform Disorder is defined as unexplained physical effects that last for at least 6 months and are below the threshold for diagnosing somatization disorder (Sadock & Sadock, 2003). Having an alternative in both the ICD-10 and the DSM-IV-TR satisfies the pragmatic need for a compatible diagnosis across the two major classification systems. Despite this, the diagnosis of somatoform disorder does have various limitations (Sadock & Sadock, 2003). The authors state that the hallmarks of Neurasthenia are a patient's emphasis on fatigability and weakness and concern about lowered mental and physical efficiency. This is in contrast to somatoform disorders, in which bodily complaints and preoccupation with physical disease dominate the presentation. Consequentially, unless an officially sanctioned psychiatric status is issued, Neurasthenia appears to be the most satisfactory diagnostic category for the diagnosis of clinical burnout.

The discussion above illustrates that burnout, as a specific diagnostic category is still an area of contention. This contention is unlikely to be resolved in the near future. Nevertheless, for an employee the implications of burnout are a far-reaching reality. Burnout impacts on an employee's health, sense of well-being and overall attitude to his or her job and career. Individuals suffering from burnout are in desperate need of an intervention. Numerous researchers have focused on this need. The next section provides an overview of possible interventions available to people suffering from burnout.

2.7 Burnout: Dowsing the flames

In their review of the burnout literature from 1993 to 2004 Hasbesleben and Buckley (2004) note that, despite the pervasive nature of burnout as an organisational problem, there has been relatively little research dedicated to presenting and evaluating interventions designed to reduce burnout. The literature suggests that there are three different levels or points where

interventions to reduce burnout may be directed (De Frank & Cooper, 1987; Leiter & Maslach, 2005). The three levels are:

i. The individual (the individual can try to change him/herself);
ii. The individual/organisation interface (the individual can try to change the relationship between the organisation and him/herself); and
iii. The organisation (the individual can try to change the organisation).

Schaufeli and Enzmann (1998) provide an overview of burnout interventions. According to these authors, burnout interventions can have five purposes. Burnout interventions can be aimed at identification, primary prevention, secondary prevention, treatment or rehabilitation (Schaufeli & Enzmann, 1998). Identifying or detecting burnout early can facilitate combating its escalation and is a first line of defence. Primary prevention is aimed at reducing risk factors or changing the nature of the stressors, whilst secondary prevention focuses on altering the ways individuals respond to stressors. Tertiary prevention or treatment aims to heal those who are suffering from burnout. Typically, these individuals are on sick leave and are experiencing severe burnout. Schaufeli and Enzmann (1998) include rehabilitation as a distinct category that refers to those individuals who have suffered burnout and returned to work. Rehabilitation focuses on both the employee and the employee's job and the employee-job interface. Although the distinctions between the various levels of prevention are not always evident, Schaufeli and Enzmann (1998) provide a useful overview of burnout interventions. These interventions are described in Table 2.6.

Table 2.6 Overview of burnout interventions

From: *The burnout companion to study and practice: a critical analysis*, p. 145, by W. Schaufeli and D. Enzmann, 1998, London: Taylor & Francis Ltd.

	Focus on Individual	Focus on Individual/ Organisational Interface	Focus on Organisation
Identification	▪ Self-monitoring ▪ Self-assessment	▪ Personal screening	▪ Stress audit ▪ Psychosocial check-up
Primary Prevention	▪ Didactic stress management ▪ Promoting a healthy lifestyle	▪ Time-management ▪ Interpersonal skills training ▪ Promoting a realistic image of the job ▪ Balancing work and private life	▪ Improving the job content and environment ▪ Time scheduling ▪ Management Development ▪ Career management ▪ Retraining ▪ Corporate fitness and wellness programmes
Secondary Prevention	▪ Cognitive-behavioural techniques ▪ Relaxation	▪ Peer-support groups ▪ Individual peer-support ▪ Coaching and consultation ▪ Career planning	▪ Anticipatory socialisation ▪ Conflict management, Communication and decision-making ▪ Organisational Development
Treatment		▪ Specialised Counselling ▪ Psychotherapy Referral	▪ Institutionalisation of Occupational Health and Safety Services ▪ Employee Assistance Programmes
Rehabilitation		▪ Individual guidance and assistance ▪ Change jobs	▪ Outplacement

Although Schaufeli and Enzmann (1998) note the absence of a general recipe to reduce or cure burnout, they express optimism in view of the availability of a vast and diverse array of interventions that may potentially be used to reduce burnout. Halbesleben and Buckley (2004) conclude that burnout can be reduced, but there is also a need to develop appropriate (and novel) programs for its reduction. Such programs should also be empirically evaluated. Maslach and Goldberg (1998) note that programs that seek to change individuals have been more prominent both in research and in practice. This could be due to a belief that burnout results from personal issues or an assumption that it is easier and cheaper to change individuals than to change an organisation. Individual-oriented approaches (for example, developing effective coping skills or learning deep relaxation) do occasionally lead to reductions in emotional exhaustion (Maslach & Goldberg, 1998; Freedy & Hobfoll, 1994). However, programs addressing burnout have had little success in reducing depersonalisation, perceptions of personal accomplishment or cynicism (Maslach & Goldberg, 1998; Freedy & Hobfoll, 1994).

Prevention strategies are designed to keep professionals from experiencing the emotional agony of burnout. However, often problems are only identified once it is too late for prevention. By the time most people begin to recognise the physical, emotional and spiritual symptoms of burnout, the problem is already well advanced (Grosch & Olsen, 1994). Individual interventions to address burnout may be pre-emptive and could buffer the individual against severe burnout. At the very least these interventions may retard the progress of burnout. It is in this context that the individual skill of mindfulness, which has proven effective in addressing stress (Grossman, Niemann, Schmidt & Walach, 2004), is suggested as a potential defence against burnout. This suggestion is explored in more detail in the following chapter.

2.8 Conclusion

Burnout is a worldwide phenomenon, experienced by various individuals in various organisational and cultural settings. Since burnout is associated with

stress, attempts can be made to pre-emptively identify burnout in its embryonic stages. Research has also provided helpful criteria to identify symptoms of burnout. In addition to diagnosing burnout, research is now focusing on possible interventions. One proposed idea involves the therapeutic use of mindfulness meditation training. Before the relationship between mindfulness and burnout can be explored, it is vital that the construct of mindfulness is understood. To this end, Chapter 3 will focus on mindfulness and its salutogenic potential in ameliorating burnout.

CHAPTER 3

LITERATURE REVIEW: MINDFULNESS

3.1 Introduction

Kabat-Zinn (2008), in the 15th edition of his book *Full catastrophe living: How to cope with stress, pain and illness using mindfulness meditation*, provides a poignant description of mindfulness:

> You only have moments to live ... yet so much of the time, we are out of touch with the richness of the present moment, and the fact that inhabiting this moment, our only moment, with greater awareness shapes the moment that follows, and if we can sustain it, actually shapes the future. The only way we have of influencing the future is to own the present, however we find it (pp. 6-7).

Mindfulness-based clinical interventions are being reported with increasing frequency, and their popularity appears to be growing rapidly (Krasner, 2004). This growing popularity is confirmed by the dramatic increase in published manuscripts relating to mindfulness – only 80 were published in 1990 while over 600 were published in 2006 (Brown, Ryan & Creswell, 2007).

Clinical studies evaluating the efficacy of mindfulness-based interventions have yielded promising data. The research suggests that mindfulness-based interventions are effective in the treatment of both psychological and physical health symptoms (Shapiro, Carlson, Astin & Freedman, 2006). Clinical interventions based on mindfulness training are now offered in more than 240 hospitals, clinics and other health-related settings worldwide (Salmon, Santorelli & Kabat-Zinn, 1998). Kabat-Zinn (2003) lists schools, workplaces, corporate offices, law schools, adult and juvenile prisons as some of the settings in which mindfulness training is offered.

The scope of mindfulness research has expanded from simply evaluating the effectiveness of mindfulness-based treatments to a growing understanding of how mindfulness-based treatments work. Research has also looked at defining target populations for mindfulness-based treatment interventions (Lau & Yu, 2009). This study endeavours to promote further understanding of mindfulness as a clinical intervention. This chapter begins with a look at the history of mindfulness and modern psychology.

3.2 History

Helminski (1992) observes that a common theme exists in all the great spiritual traditions: the practice of mindful presence. This practice is variously referred to as awakening, recollection, mindfulness, dhyana, remembrance, zikr or presence. In some traditions, this practice goes "by no name at all" (Helminski, 1992, p. viii). The author further observes that in certain teachings, such as Buddhism, the practice of mindful presence is the central component. In Islam, remembrance qualifies all activity. Helminski (1992) suggests that within Christianity the experience of Christian mystics and of heartfelt prayer reflect a mindful presence. Although they may define it differently, all authentic spiritual psychologies view this state of consciousness as a fundamental experience and requirement. Clearly, the concept of mindfulness is entrenched in more contemplative traditions where conscious attention and awareness are actively cultivated.

Kabat-Zinn (1982) points out that, until recently, mindfulness has been a relatively unfamiliar concept in much of western culture. This could be due to the concept's origins in eastern meditation practices. The cultivation of mindfulness through the practice of meditation has a long history in Eastern spiritual traditions, primarily Buddhism (Kabat-Zinn, 1982). Kabat-Zinn (2003) adds that mindfulness received its most explicit and systematic articulation and development within the Buddhist tradition. However, the essence of mindfulness also lies at the heart of other ancient and contemporary traditions and teachings. Western researchers and clinicians who have introduced mindfulness practice into mental health treatment programs usually teach

these skills independently of the original religious and cultural traditions (Kabat-Zinn, 1982) and sometimes even independently of traditional meditation (Dimidjian & Linehan, 2003). Although mindfulness methods have formed part of spiritual and religious traditions for millennia Western researchers are still in the nascent stages of studying these methods within the Western scientific tradition (Hayes & Plumb, 2007).

Mindfulness meditation was secularised and imported to the West by Kabat-Zinn as the cornerstone of his stress reduction and relaxation program developed at the University of Massachusetts Medical Center (Kabat-Zinn, 1994; Kabat-Zinn, 2008). In 1979 Kabat-Zinn (2008) offered an eight-session, group-based Mindfulness-Based Stress Reduction (MBSR) program as an intervention for the treatment of intractable chronic pain. The program focused on patients whose suffering had not responded satisfactorily to conventional treatments (Carmody, 2009). Kabat-Zinn's eight-week MBSR program is presented in Table 3.1.

Table 3.1 Kabat-Zinn's eight-week MBSR program

From: *Full catastrophe living: How to cope with stress, pain and illness using mindfulness meditation.* (15th ed.), p. 434, by J. Kabat-Zinn, 2008, London: Piatkus.

MBSR: EIGHT- WEEK PRACTICE SCHEDULE	
Weeks 1 & 2	• Body scan, 6 days per week, 45 minutes a day; and • Individuals can sit with awareness of breathing for 10 minutes per day.
Weeks 3 & 4	• Alternate body scan with yoga (45 minutes) if possible, 6 days per week; and • Individuals can continue sitting with awareness of breathing for 15-20 minutes per day.
Weeks 5 & 6	• Sit 30-45 minutes per day, alternating with yoga; and • Individuals can begin walking meditation if they haven't already.
Weeks 7	• Practice 45 minutes per day using one's personal choice of methods, either alone or in combination; and • If tapes have been utilised, then discontinue using them during this week.
Weeks 8	• Go back to using tapes; • Do body scan at least twice this week; and • Continue the sitting and the yoga.

Through research and practice a wealth of experimental research has been accumulated to provide the foundation for a theory of mindfulness (Langer, 1989). Kabat-Zinn's MBSR program has also been replicated in a large number of other settings. The programme has also served as a template for similar programs such as Mindfulness-Based Cognitive Therapy (MBCT) (Carmody, 2009).

Over time the focus has naturally shifted from mindfulness treatment to process research. This research was initially hampered by the lack of an

operational definition of mindfulness (Lau & Yu, 2009). Defining mindfulness thus became an important issue.

3.3 Defining mindfulness

Mindfulness has been defined as "moment-to-moment awareness" (Kabat-Zinn, 2008, p. 66). The essence of mindfulness, as described by Kabat-Zinn (2008), is "knowing what you are doing while you are doing it" (p. 28). Mindfulness involves noticing what is present and includes noticing that one is no longer present (Brown et al., 2007). Recognising that one is not being attentive and aware is itself an instance of mindfulness. Mindfulness includes continuous, immediate awareness of physical sensations, perceptions, affective states, thoughts and imagery (Grossman et al., 2004). Scherer-Dickson (2004) explains that staying mindful means being aware of the 'here and now' and accepting whatever life might bring. This involves accepting that positive and negative events are both essential components of life.

Praissman (2008) provides an illustrative example of mindfulness in daily life: A patient newly diagnosed with heart disease may be overwhelmed by fear of suffering a sudden myocardial infarction (MI). Without mindfulness he may allow his mind to focus on the fear. This prevents him from experiencing non-fear and changes how he interacts with the outside world. He will be afraid to participate in activities. Instead of enjoying life, he will always be worrying about having an MI. With mindfulness, the same patient observes that he is afraid. He lets that feeling pass, and re-orients to the present moment in which he is not having an MI and, therefore, exists without fear. Through not judging his emotion, he enjoys the present moment. With practice, he accepts that negative emotions, thoughts and feelings arise but realizes that they also quickly pass and do not define his mind. He is then able to relax and enjoy life.

The mindful state of mind is differentiated from states of mind in which attention is focused elsewhere. This relative absence of mindfulness can be referred to as mindlessness (Brown & Ryan, 2003; Langer & Piper, 1987; Linehan, 1993a). Mindlessness is participating without paying attention to the

task (Linehan, 1993a). Mindlessness occurs when an individual refuses to acknowledge or attend to a thought, emotion, motive or object of perception (Brown & Ryan, 2003). The following list provides examples of mindlessness (Brown & Ryan, 2003; Germer, Siegel & Fulton, 2005; Nolen-Hoeksema, 1991):

- Snacking without being aware of eating;
- Rushing through activities without being attentive to them;
- Forgetting a person's name almost as soon as one has heard it;
- Rumination (i.e. the repetitive focusing of attention on negative feelings and thoughts in response to negative mood);
- Absorption in the past; and
- Fantasies and anxieties about the future.

Brown and Ryan (2003) argue that these mental activities pull one away from what is taking place in the present. Essentially, they affect awareness and mindfulness in its totality. According to Linehan (1993a) total mindfulness: "has to do with the quality of awareness that a person brings to activities" (p. 146).

Williams, Teasdale, Segal and Kabat-Zinn (2007) explain: "mindfulness means paying attention to things as they actually are in any given moment, however they are, rather than as one wants them to be" (p. 47). Mindfulness, according to these authors, is:

- Intentional, as being mindful enables one to be more aware of present reality and the choices available to one, this also involves the ability to act with awareness;
- Experiential, through its direct focus on the present-moment experience; and
- Non-judgemental, in that it allows one to see things as they actually are in the present moment and to allow them to be as they already are.

Kabat-Zinn (1994) further defines mindfulness as "paying attention in a particular way: on purpose, in the present moment, and non-judgementally" (p.4). However, mindfulness is most commonly defined as "the state of being attentive to and aware of what is taking place in the present" (Brown & Ryan, 2003, p. 822). This kind of attention nurtures greater awareness, clarity and acceptance of present-moment reality (Kabat-Zinn, 1994).

According to Kabat-Zinn (1994) mindfulness is simply a practical way of being more in touch with the fullness of your being through a systematic process of self-observation, self-inquiry and mindful action. Mindfulness is about attention, and is therefore of necessity universal (Kabat-Zinn, 2003). People are generally mindful to one degree or another, moment by moment. Mindfulness is an inherent human capacity (Brown & Ryan, 2003; Kabat-Zinn, 2003). Shapiro, Brown and Biegel (2007) note that the disposition to be mindful can be enhanced through mindfulness training. Mindfulness meditation practice teaches non-judgemental acceptance and interested awareness of moment-to-moment experience of sensations, perceptions, emotions and other forms of mental activity (Majumdar, Grossman, Dietz-Waschkowski, Kersig & Walach, 2002). The relationship between mindfulness and meditation therefore requires some clarification.

3.3.1 Mindfulness and meditation

Meditation is defined as the intentional self-regulation of attention from moment to moment (Goleman & Schwartz, 1976; Kabat-Zinn, 1982). Goleman (1977) provides a useful guideline for categorising meditation techniques: All meditation systems aim for either One or Zero – union with God or emptiness. The path to the One is through concentration on Him. The path to the Zero is through insight into the voidness of one's own mind. Goleman (1977) explains that mindfulness allows one to control the senses through cultivating the habit of simply noticing sensory perceptions and not allowing them to stimulate the mind into chains of thought reactions. Mindfulness is the attitude of paying sensory stimuli only the barest attention. In daily practice, mindfulness leads to detachment from the meditator's own perceptions and thoughts.

Goleman (1977) further explains that in mindfulness the meditator methodically faces the bare facts of his/her experience, seeing each event as though it is occurring for the first time. The meditator does this by continuous attention to the first phase of perception, when his/her mind is receptive rather than reactive. He/she restricts his/her attention to the bare notice of his/her senses and thoughts. He/she attends to these as they arise in any of the five senses or in his/her mind. While attending to his/her sense impressions, the meditator restricts his/her reaction to simply registering whatever he/she observes. If any further comment, judgement or reflection arises in the meditator's mind, this is also made the focus of bare attention. Thus, such comments, judgements or reflections are neither repudiated nor pursued but simply dismissed after being noted. The essence of mindfulness is therefore "the clear and single-minded awareness of what actually happens *to* us and *in* us, at the successive moments of perception" (Goleman, 1977, p. 21-22).

There are four kinds of mindfulness, identical in function but different in focus (Goleman, 1977):

1. Mindfulness of the body

The meditator attends to each moment of his/her bodily activity, such as his/her posture and the movements of his/her limbs. The meditator notes his/her body's motion and position regardless of what he/she does.

2. Mindfulness of feelings

The meditator focuses on his/her internal sensations, disregarding whether they are pleasant or unpleasant. He/she simply notes all his/her internal feelings as they come to his/her attention. Some feelings are the first reaction to messages from the senses, some are physical feelings accompanying psychological states and some are by-products of biological processes. Whatever the source, the feeling itself is registered.

3. Mindfulness of mental states

The meditator focuses on each state as it comes to awareness. Whatever mood, mode of thought or psychological state presents itself, he/she simply

registers it as such. If, for instance, there is anger at a disturbing noise, at that moment the meditator simply notes 'anger'.

4. Mindfulness of mind objects

This kind of mindfulness differs from mindfulness of mental states because of the level at which the mind's workings are observed. Instead of noting the quality of mental states as they arise, the meditator notes the attentional objects that occupy those states. For the example above, the meditator would note 'disturbing noise'. As each thought arises, the meditator notes it in terms of a detailed schema for classifying mental content.

Each of these four kinds of mindfulness and their varying methods of practicing and cultivating mindfulness is designed to break through the illusions of continuity and reasonableness that sustain our mental life. In mindfulness, the meditator begins to witness the random units of 'mind stuff' from which his/her reality is built. From these observations a series of realisations about the nature of the mind emerge. With these realisations "mindfulness matures into insight" (Goleman, 1977, p. 24). Kabat-Zinn (2003; 2008) states that mindfulness meditation is also understandably termed insight-oriented meditation, which involves a deep, penetrative non-conceptual seeing into the nature of mind and world. Lykins and Baer (2009) found that practicing meditation is associated with higher levels of mindfulness in general daily life. This in turn is related to decreased rumination, decreased fear of emotion and increased behavioural self-regulation. The discussion of mindfulness in this section leads inevitably to the question of the origins of mindfulness. It is this question that is addressed in the following section.

3.3.2 Mindfulness: State or Trait

Mindfulness scale development research has found that some individuals have higher natural levels of mindfulness without having undergone formal mindfulness training (Greeson, 2009). However, formal mindfulness meditation practice can increase an individual's capacity to be mindful

(Germer et al, 2005; Kabat-Zinn, 2003; Linehan, 1993a). An individual may be in a particularly mindful state during a period of formal meditation, and this state of mindfulness may diminish soon after the meditation session ends (Lau et al., 2006). However, Kabat-Zinn (2003) proposes that all individuals have a greater or lesser inherent capacity for mindfulness.

Mindfulness as a trait-like quality manifests as a general tendency to be mindful in daily life (Lau et al., 2006). On the other hand, mindfulness viewed as a state-like quality is maintained only when attention to experience is intentionally cultivated with an open, non-judgemental orientation to experience (Bishop et al., 2004). Brown and Ryan (2003) propose a trait view of mindfulness. They contend that all individuals have a general level of mindfulness that is relatively constant from day to day. This level can be increased with practice. The authors do note that mindfulness has both state-like and trait-like qualities (Brown & Ryan, 2004). Sternberg (2000) argues that mindfulness is a cognitive style, part state and part trait. He concludes that mindfulness is at the interface between cognition and personality and has characteristics both of a state and a trait. Sternberg (2000) further suggests that one pole (i.e. cognition or personality) is likely to be superior to the other pole under most, but not all, circumstances. Moreover, Sternberg (2000) further proposes that people differ in their average levels of mindfulness. Germer et al. (2005) assert that mindfulness is rarely continuous. However, veteran meditators do experience more continuous mindfulness (Germer, Siegel & Fulton, 2005).

The literature assumes that mindfulness is a skill or a type of mental training that can be developed with practice (Bishop et al., 2004; Kabat-Zinn, 2003). Recent studies indicate that self-reported mindfulness increases following mindfulness training (Anderson, Lau, Segal & Bishop, 2007; Carmody, Reed, Kristeller & Merriam, 2008). Whether it is measured as a trait, induced as a temporary state or developed as the result of extensive training, mindfulness is related to emotion, thought and psychological well-being (Leary & Tate, 2007). The cultivation of mindfulness is central to its outcomes and is discussed below.

3.4 Cultivating Mindfulness

Mindfulness entails being fully present to whatever one is doing (Kamilar, 2002). This state of mindfulness can be cultivated by practicing various forms of meditation or mental training (Carlson & Garland, 2005). Kabat-Zinn (1982) conceptualises mindfulness as a set of skills that can be taught. Mindfulness is also seen as a mental skill that can be learnt (Germer et al., 2005; Kabat-Zinn, 1994; 2008; Kostanski & Hassed, 2008; Williams et al., 2007). The skill of mindfulness can be achieved through the regular practice of mindfulness meditation (Carmody & Baer, 2008). Mindfulness meditation involves a collection of meditation practices (Kabat-Zinn, 2003). In the meditative context, practice means "being in the present on purpose" (Kabat-Zinn, 2008, p.29). These practices of meditation, regardless of their varying techniques, are merely launching platforms that invite the cultivation and sustaining of attention in particular ways (Kabat-Zinn, 2003).

Any exercise that alerts us to the present moment, with acceptance of things as they actually are, cultivates mindfulness (Germer et al., 2005). The mindfulness literature is replete with descriptions of mindfulness meditation exercises designed to develop mindfulness skills (Germer et al., 2005; Kabat-Zinn, 2008; Linehan, 1993b). Some exercises teach individuals to pay attention to the internal experiences occurring in each moment, such as bodily sensations, emotions and thoughts (Linehan, 1993b). Other exercises encourage paying attention to aspects of the environment (Kabat-Zinn, 2008) or include the senses of sight, sound, touch, smell, taste and hearing (Germer et al.,2005). Meditation techniques taught as part of Kabat-Zinn's Mindfulness-Based Stress Reduction (MBSR) program include body scan meditation, sitting and walking meditation and hatha yoga (Carlson & Garland, 2005). Boccio (2004) states that yoga is essentially mindfulness in movement.

Engaging in the practice of mindfulness takes a variety of forms. Practices range from formal practices that are undertaken for varying periods of time on a regular basis, to informal practices that are aimed at cultivating a continuity of awareness in all activities of daily living (Kabat-Zinn, 2003). Brantley (2003)

describes formal mindfulness meditation practice as that period of time when meditation is the practitioner's principal activity. An example of a formal meditation practice is the body-scan meditation technique. This technique comprises a journey through the geography of the physical form (Tacón & McComb, 2009). It involves a gradual, thorough sweeping of attention through the entire body, focusing non-critically on sensations or feelings in body regions with suggestions of breath awareness, acceptance and relaxation (Tacón & McComb, 2009). Kabat-Zinn (2003) further explains:

> The idea in scanning your body is to actually *feel* each region you focus on and linger there with your mind right *on* it or *in* it. You breathe in *to* and out *from* each region a few times and then let go of it in your mind's eye as your attention moves on to the next region. As you let go of the sensations you find in each region and of any of the thoughts and inner images you may have found associated with it, the muscles in that region literally let go too, lengthening and releasing much of the tension they have accumulated. It helps if you can feel or imagine that the tension in your body and the feelings of fatigue associated with it are *flowing out* on each outbreath and that, on each inbreath, you are breathing in energy, vitality, and relaxation (p. 77).

Informal mindfulness meditation practice means that throughout the day, in different situations, the meditator practices mindfulness of what is happening (Brantley, 2003). For instance, when driving an individual could use their breath as an anchor in order to be present moment-by-moment and have the full experience of driving. Mindfulness refers to the ability to be in the present moment, to focus, and to be aware of the most basic and simplest of actions, such as breathing and walking (Olson, 2002). To facilitate continuity of the mindful mind formal meditation practice techniques such as awareness of breath can be practiced informally and at every opportunity. This involves simply purposefully paying attention to the direct sensations of breathing patterns as they arise, change and disappear. Whenever the meditator's

attention wanders off from the breath sensation, he/she notices the change of attention and gently redirects it back to the breath.

Consequentially, the practice of mindfulness includes making meditations of mundane daily activities such as eating, driving and washing dishes (Hanh, 1976). This is achieved by simply being present in the moment and allowing oneself to experience the moment in its fullness (Carlson & Garland, 2005). Leary and Tate (2007) explain that mindful attention is achieved by reducing inner self-talk. Through quieting self-chatter, the running flow of mental commentary, thoughts about the past and future, self-evaluations, judgements and other extraneous reactions people can remain highly attuned to their present experience. In order to achieve this level of mindfulness, mindfulness practitioners are encouraged to practice awareness of breath meditation as an anchor to bring their thoughts back to the present moment (Brantley, 2003: Kabat-Zinn, 2008). These practices combine to realise the core aim of mindfulness meditation practice: the cultivation of mindfulness throughout the individual's whole life (Kostanski & Hassed, 2008).

Although relaxation can and often does develop during the course of mindfulness meditation, relaxation is not a goal of mindfulness meditation (Baer, 2003). Instead of focusing concentration and awareness through shutting out distractions, mindfulness practice opens up and expands awareness. Kabat-Zinn (2008) crystallizes the outcome of cultivating mindfulness in these words:

> When you are grounded in calmness and moment-to-moment awareness, you are more likely to be creative and to see new options, new solutions to problems. You are more likely to be aware of your emotions and less likely to be carried away by them. It will be easier for you to maintain your balance and sense of perspective in trying circumstances (p. 269).

It is this outcome that led to Kabat-Zinn's endeavour to develop mindfulness as a modern psychotherapeutic intervention and precipitated empirical

research into the salutogenic benefits of mindfulness. These benefits are discussed in the next section.

3.5 Mindfulness: Salutogenic effects and benefits

There is rapidly accumulating evidence in the field of complementary health practices that greater mindfulness not only reduces stress and stress-related medical symptoms but also enhances positive emotions and quality of life (Greeson, 2009). Evidence is emerging that suggests that symptom reduction following mindfulness interventions is mediated by mindfulness (Carmody & Baer, 2008; Shapiro, Oman, Thoresen, Plante & Flinders, 2008). According to Greeson (2009) both basic research (studies that are intended to solve theoretical issues) and clinical research indicate that cultivating a more mindful way of being is associated with less emotional distress, more positive states of mind and better quality of life. In addition, mindfulness practice can influence the brain, the autonomic nervous system, stress hormones, the immune system and health behaviours (including eating, sleeping and substance use) in salutary ways.

Claessens (2009) explains that mindfulness enables people to identify negative thinking. Negative thinking is thus identified as it starts and before it activates or reactivates the full negative spiral of downward thinking associated with mental health problems such as stress, depression and anxiety. Once the negative thinking pattern is identified the person has the option of preventing the embryonic episode from developing further and becoming established. Patients are initially taught to focus on their body parts and their breath. Gradually, their focus is directed onto sensations, external stimuli such as sounds and emerging thoughts. The intention is to always return to the object the patient was initially focusing on once they become aware that their mind has wandered off. The immediate benefit of this deceptively simple exercise is a development of an awareness of the workings of the mind. This includes an awareness of the connection between thoughts and sensations and their role in the development of emotional states.

Brown et al. (2007) explain the process of developing awareness. The authors suggest that mindfulness simply involves an abiding awareness of what is taking place. Thus, a thought cannot be intrusive because it simply forms part of the moment. The very notion of 'intrusive ' thought implies an egoic self that seeks to control what is occurring in consciousness (Brown et al., 2007). However, in the mindfully observant state the ego is in abeyance so there is no one to intrude upon. In this state, thought is just thought (Kostanski & Hassed, 2008; Segal, Williams & Teasdale, 2002) and its demands for desire satisfaction and goal fulfilment need not be reflexive (Brown et al., 2007). Essentially, patients learn to regard thoughts as simple 'events of the mind' that pass like clouds in the sky, instead of viewing thoughts as accurate reflections of reality that must be believed or to which a personal meaning must be attached (Claessens, 2009). Consequentially, when mindful awareness begins to predominate, ego-driven thought begins to lose its hold on the conscious mind (Brown et al., 2007).

Kamilar (2002) adds that through mindfulness practice individuals begin to become familiar with their habitual patterns of thinking, feeling and behaving. This practice slows down the mind so that one can see that there are naturally occurring gaps in thought streams. The realisation emerges that thought processes are not problematic. Consequentially, a greater sense of autonomy arises from mindfulness practice (Kostanski & Hassed, 2008). This emerges not so much from a need to control thoughts, sensations and emotions but rather from the experience of not having to be controlled by them.

The argument and explanation presented above was proposed by Brown et al. (2007) and Kamilar (2002) and gives credence to Tacón and McComb's (2009) conclusion that mindfulness provides a means of self-monitoring and self-regulating arousal. As a result, practitioner and patient are equally engaged in the intervention and both share in a truly participatory, biopsychosocially-oriented medicine, where bi-directional healing takes place (Krasner, 2004).

Brown and Ryan (2003) conducted a study that found that the enhancement of mindfulness predicts declines in both mood disturbance and stress, over and above the effects of changes in physical symptoms. Hamilton, Kitzman and Guyotte (2006) suggest that the observation of emotion during mindfulness meditation practice may enhance the practitioner's familiarity with his/her emotional repertoire and increase tolerance of negative emotions. This indirectly reduces the magnitude and duration of unpleasant emotions. The inverse relationship between mindfulness and mood disturbance provides a possible explanation for the success of Dialectic Behaviour Therapy (DBT), a mindfulness-based therapy, in the treatment of borderline personality disorder (Linehan, 1993a). Baer (2003) suggests that individuals may be more likely to use a range of coping skills if they are more self-aware. Thus, self-awareness cultivates self-management, which is facilitated by present-moment awareness produced through mindfulness meditation. Kabat-Zinn et al. (1998) state that experienced meditation practitioners report that they benefit from being able to separate physical sensations from affect and cognition.

Mindfulness skills have been embedded in several interventions that are now widely available in medical and mental heath settings. The most frequently used method of mindfulness training is the Mindfulness-Based Stress Reduction (MBSR) program (Baer, 2003), formerly known as the Stress Reduction and Relaxation Program (SR-RP) (Kabat-Zinn, 1982). A meta-analysis of studies testing the clinical effectiveness of MBSR found a significant effect size of $d = 0.5$ (Grossman, Schmidt, Niemann & Walach, 2004). A contemporary list of mindfulness-based training and therapy is outlined in Table 3.2.

Table 3.2 Mindfulness-Based Training and Therapies

MINDFULNESS-BASED TRAINING AND THERAPIES		
Training / Therapy	**Acronym**	**Developer(s)**
Mindfulness-Based Stress Reduction	MBSR	Kabat-Zinn (1982)
Mindfulness-Based Cognitive Therapy	MBCT	Segal, Williams & Teasdale (2002)
Acceptance and Commitment Therapy	ACT	Hayes, Strosahl & Wilson (1999)
Dialectical Behaviour Therapy	DBT	Linehan (1993a)
Mindfulness-Based Eating Awareness Training	MB-EAT	Baer (2006)
Mindfulness/Acceptance-based treatments for Generalised Anxiety Disorder		Roemer & Orsillo (2002)
Mindfulness-based therapy for Obsessive-Compulsive Disorder		Schwartz (1996)
Dialectical Behaviour Therapy for Binge Eating Disorder		Telch, Agras & Linehan (2001)
Relapse Prevention for Substance Abuse	RP	Marlatt & Gordon (1985)

Lau et al. (2006) conclude that the goal of mindfulness in clinical settings is twofold:

i. To increase insight regarding how automatic, habitual patterns of over-identification and cognitive reactivity to sensations, thoughts and emotions increase stress and emotional distress; and
ii. To reduce the vulnerability to these mind states, thereby producing lasting improvements in emotional well-being.

The achievement of these goals has resulted in numerous salutogenic outcomes. According to Greeson (2009) the mindfulness-based training programs mentioned above can effectively treat:

- Anxiety disorders (MBSR and ACT);
- Recurrent major depression (MBCT);
- Chronic pain (MBSR and ACT);

- Borderline personality disorder (DBT); and
- Binge eating disorder (MB-EAT).

Other serious mental and physiological health conditions that have been treated using mindfulness-based interventions include:

- Anger and cancer (Speca, Carlson, Goodey & Angen, 2000);
- Substance use (Linehan et al., 1999);
- Parasuicidal behaviour (Linehan, Armstrong, Suarez, Allmon & Heard, 1991);
- Psychosis (Chadwick, Taylor & Abba, 2005); and
- Child behaviour problems (Dumas, 2005).

Robinson, Mathews and Witek-Janusek (2003) found evidence that MBSR may produce beneficial effects on the immune system and Human Immunodeficiency Virus (HIV). Kingston, Dooley, Bates, Lawlor and Malone (2007) found support for their hypothesis that residual depressive symptoms are decreased during an MBCT program, and that clinical gains are maintained at follow up. Although MBSR and ACT were initially targeted at individuals with physical and psychiatric issues, they are now also applied to healthy (i.e. non-psychiatric) stressed populations (Brown et al., 2007).

Hayes et al. (2004) state that ACT has been shown to be effective in reducing burnout in substance abuse counsellors. ACT has also shown some success in the treatment of schizophrenia (Bach & Hayes, 2002), smoking cessation (Gifford, 2002) and workplace stress (Bond & Bruce, 2000). Two well-conducted randomised clinical trials have shown that MBCT is effective in reducing depression relapse rates in participants with a history of three or more depressive episodes (Ma & Teasdale, 2004; Teasdale et al., 2000). There is also increasing scientific evidence to support the therapeutic effect of mindfulness meditation training on stress-related medical conditions, including psoriasis (Kabat-Zinn et al., 1998), fibromyalgia (Kaplan, Goldenberg & Galvin-Nadeau, 1993) and tension headaches (Sharma, Kumaraiah, Mishra & Balodhi, 1990). Mindfulness has also been found to be related to increases in

competence, flexibility, use of information, memory, creativity, positive affect, increase in health and longevity. Mindfulness has also been associated with decreases in aging-associated complaints, accidents, human error and stress (Alexander, Langer, Newman, Chandler & Davies, 1989; Langer, 1989; Langer, 2000; Langer & Moldoveanu, 2000). Langer (1989) proposes that mindfulness is an enabling state in which individuals feel more in control of their lives. In empirical studies trait mindfulness has been associated with lower negative affect including fewer depressive symptoms, lower anxiety and stress (Brown & Ryan, 2003; Carlson & Brown, 2005). It is also associated with higher levels of subjective well-being (lower negative affect, higher positive affect and satisfaction with life).

Using the Mindful Attention Awareness Scale (MAAS), a measure of the absence of automated, mindless behaviour, Brown and Ryan (2003) found that mindfulness was negatively correlated with anxiety, hostility, depression, self-consciousness and impulsivity. Brown and Ryan (2003) further found that mindfulness was positively correlated with measures of eudaimonic well-being, such as feelings of autonomy, competence, self-actualisation, vitality and positive relations with others, in both undergraduate and community samples. The results of two studies suggest that mindfulness may also play an influential role in romantic relationship well-being (Barnes, Brown, Krusemark, Campbell & Rogge, 2007). In general, the literature seems to suggest that by enhancing trait mindfulness or creating state mindfulness and generalising it until it becomes a trait, the mindfulness meditation practitioner can potentially access all these salutogenic benefits.

Although it is similar to cognitive therapies, mindfulness meditation has the advantage of being taught to a heterogeneous patient population and preventing the onset of psychopathology that may result with new medical diagnoses (Kitzman & Guyotte, 2006). Grossman et al. (2004) observe that many of the published studies remain critically unevaluated and may be of questionable scientific rigour or too limited in scope to confirm such claims. Nevertheless, in her analysis of 21 primary studies of mindfulness training conducted up until 2003, Baer (2003) found an encouraging mean effect size

(0.59) reported across these studies. Despite numerous limitations in scientific studies on mindfulness, confidence in mindfulness' therapeutic value is secure. Martin (1997) argues that mindfulness is a common factor and key ingredient of effective psychotherapy. Baer (2003) states that in the current empirical literature, clinical interventions based on training in mindfulness skills are described with increasing frequency and their popularity appears to be growing rapidly. A case in point is that MBCT is now recommended as a treatment for recurrent depression in the United Kingdom's National Institute for Clinical Excellence (NICE) guidelines (NICE, 2004).

3.6 Conclusion

Theorists from various schools of personality and psychotherapy have discussed the importance of observant, open awareness and attention in the optimisation of self-regulation and well-being (Martin, 1997). Mindfulness may play a role in disengaging individuals from automatic thoughts, habits and unhealthy behaviour patterns. It could thus play a key role in fostering informed and self-endorsed behavioural regulation, which has long been associated with well-being enhancement (Ryan & Deci, 2000).

Mindfulness has become embedded in mainstream health care as an effective clinical intervention. Kabat-Zinn's (2003) list of settings in which mindfulness training is offered confirms this statement. In addition, Grossman et al. (2004) provide a meta-analytic review of all published and unpublished investigations purporting health-related benefits for MBSR. The authors' findings suggest that MBSR is a useful intervention for a broad range of chronic disorders and problems. The authors' state:

> In fact, the consistent and relatively strong level of effect sizes across very different types of sample indicates that mindfulness training might enhance general features of coping with distress and disability in everyday life, as well as under more extraordinary conditions of serious disorder or stress (p. 39).

In light of the discussion concerning mindfulness contained in this chapter it is reasonable to assume that mindfulness has an inverse relationship with burnout. This leads logically to the conclusion that if mindfulness can treat maladies associated with stress, which is a precursor to burnout (as discussed in chapter 2), then mindfulness can potentially treat occupational burnout and its symptoms. To establish the usefulness of mindfulness in the South African corporate context, certain statistical procedures were performed. These procedures are discussed in the next chapter.

CHAPTER 4

RESEARCH METHODOLOGY

4.1 Introduction

The previous chapters provided a comprehensive literature review of the constructs relevant to this study. The current chapter discusses the research methodology that was employed to investigate these constructs.

4.2 Research Aims

Ganster and Schaubroeck (1991) argue that burnout is a type of stress. Specifically, they view burnout as a chronic affective response pattern to stressful work conditions that feature high levels of interpersonal contact. In the context of the current research this implies that, if burnout is a type of stress and mindfulness has been proven to reduce stress among other psychological maladies, then there may be a correlation between burnout and mindfulness. There is currently very little research on the relationship between mindfulness and burnout. Following the literature review, the aims of the study were:

- To explore the extent of burnout among employees in a South African corporate organisation; and

- To examine the relationship between burnout and mindfulness in the same population. In order to attain these aims, the following hypotheses were set:

H_0: There is no relationship between mindfulness and burnout among employees in a South African corporate organisation.

H_1: There is a statistically significant relationship between mindfulness and burnout among employees in a South African corporate organisation.

No South African Study has previously explored the usefulness of the Oldenburg Burnout Inventory (OLBI) as a Burnout inventory. In addition, no studies have explored the usefulness of Mindfulness Inventories, or the Mindful Attention Awareness Scale (MAAS) in particular, within the South African Context. This study therefore also aimed to explore the reliability of the OLBI and the MAAS within a South African context.

4.3 Research Strategy

A research strategy is a general approach to research determined by the kind of question that the research study hopes to answer (Gravetter & Forzano, 2006). The research strategy for this study involved the use of correlational research. In correlational research two separate variables are measured and recorded for each individual. The measurements are then reviewed to identify any patterns of relationship that exist between the two variables. If a relationship is found, the strength of the relationship is then measured. "The purpose of a correlational study is to establish that a relationship exists between variables and to describe the nature of the relationship" (Gravetter & Forzano, 2006, p. 308). Correlational research is used to assess behaviour as it occurs in people's everyday lives. However, correlational research cannot be used to identify causal relationships between variables. Additionally, because correlational research only measures a limited number of variables, it is always possible that neither of the variables caused the other and that some other variable caused the observed variables to be correlated. In sum, "correlational research is limited to demonstrating relationships between or among variables or to making predictions of future events, but it cannot tell us why those variables are related" (Stangor, 1998, p.14).

4.4 Sampling technique

A systematic random sampling technique was used to access the research sample. Systematic random sampling is a type of probability sampling that involves obtaining a sample by selecting every n^{th} participant from a list containing the total population (Gravetter & Forzano, 2006). The starting point

for this type of sampling must be random. Systematic random sampling was a viable sampling option as the organisation under investigation provided a complete list of their employees. This method of probability sampling ensures a high degree of representativeness (Gravetter & Forzano, 2006).

4.4.1 Sampling process

The banking industry is a prime example of a modern corporate work environment. Previous chapters suggested that the problem of occupational stress leading to burnout is endemic to modern corporate environments. The banking industry is therefore likely to be vulnerable to burnout. The current global crisis in international banking, poor corporate governance, white-collar crime and the worldwide retrenchments of bank employees has placed considerable pressure on banking environments. Individuals that remain employed in the banking industry are burdened with the added workload of staff that were retrenched. Against this backdrop it was felt that a bank would be an appropriate organisational environment in which to study the constructs of burnout and mindfulness. Due to easy accessibility, a bank in Johannesburg was identified as the ideal place from which to obtain a sampling frame. Once permission to conduct the study had been obtained from the relevant structures and individuals, a meeting took place with the Human Resources (HR) department. Following this meeting a complete numbered list of all employees currently employed by the bank was obtained. The total number of individuals in the sample frame equalled 3577 (N = 3577). A sample size of 400 was considered adequate. This sample size was considered adequate to generalise the results of the present study to the sample frame.

Systematic random sampling was employed to select a sample of 400. Employee number 5 was chosen as the starting point using random selection. Thereafter, every 14th name on the employee list was chosen until the required sample size was reached. Employees in executive positions were excluded due to their demanding schedules. The following inclusion criteria guided the selection of participants:

- Participants were in the employ of the bank at the time of testing;
- Participation was completely voluntarily and every respondent had to sign a consent form to this effect (see Appendix A); and
- Participants had to be over 18 years of age.

After the sample was obtained, the list of participants' names was emailed to the bank's HR department. An invitation from the researcher to the employees inviting them to participate (Appendix B) accompanied this list. The HR department then emailed the researcher's invitation to each of the selected employees together with a statement ratifying the research and the organisation's own invitation to employees to participate. The employees were emailed in groups of approximately twenty. A generic email was sent that requested employees to volunteer participation at a particular date, time and venue. The employees then responded by means of a reply email confirming or declining participation. Employees that volunteered their participation were allocated to a boardroom at the bank in groups of approximately twenty. Employees were then handed a hardcopy of the questionnaires and consent form, which they then completed. Questionnaires and consent forms were collected on completion for data processing.

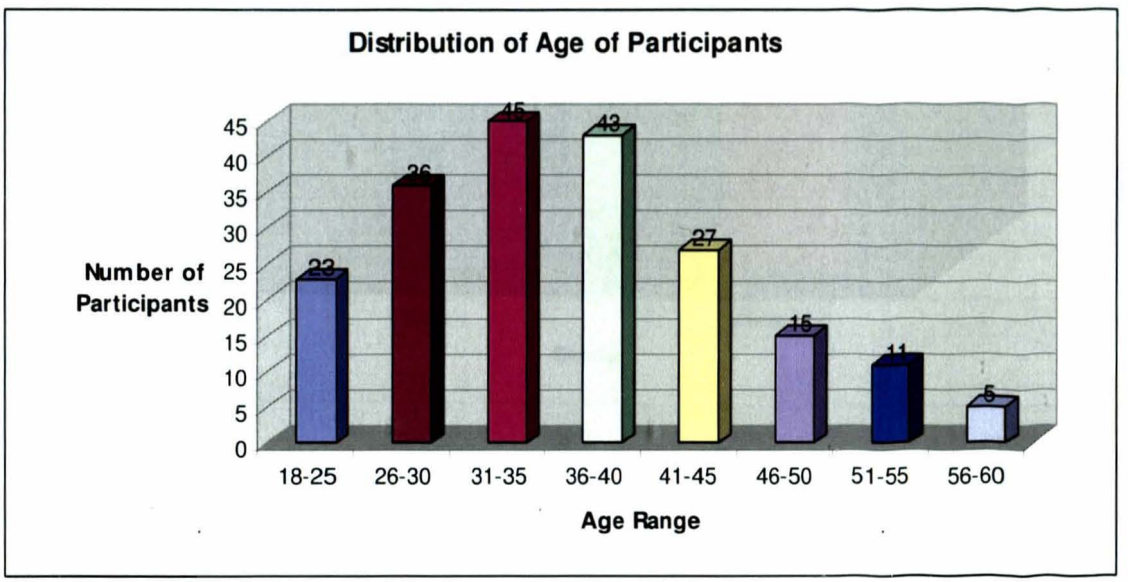
4.4.2 Realised sample

The sample eventually included 210 participants. This small sample was the result of a poor response rate. Due to time constraints the decision was taken to use this sample. Although this was not ideal the sample size was sufficient to conduct reliability measures on the measuring instruments. One participant aired reservations about participation subsequent to completion and submission of the questionnaire. In the interests of good ethical practice the participant's completed questionnaire was consequentially set aside. Two other completed questionnaires were unsuitable for data processing and were also set aside. The final sample of 207 was hence used to conduct the analyses of the data. The following subsections provide information concerning the characteristics of the realised sample.

4.4.2.1 Age of the realised sample

Figure 4.1 illustrates the participants' age distribution.

Figure 4.1 Distribution of Age of Participants

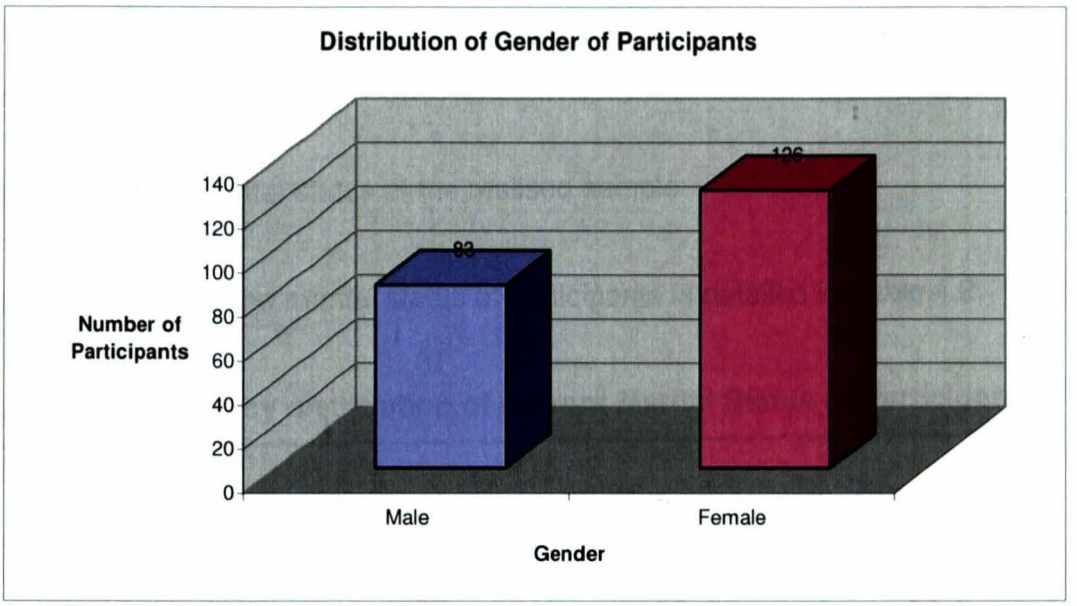


The majority of participants were in the 31 to 35-age range (21.5%). Over half of the sample was less than 36 years of age (50.7%). Four participants did not report their age.

4.4.2.2 Gender of the realised sample

The participants' gender distribution is illustrated in Figure 4.2.

Figure 4.2 Distribution of Gender of Participants



Close to two-thirds (60.3%) of the realised sample of 209 participants were female (n=126). Just over one-third (39.7%) of the participants were male (n=83).

4.4.2.3 Race of the realised sample

The participants' race distribution is detailed in Table 4.1. The table shows that the study used a multi-racial sample.

Table 4.1 Frequency distribution of Race of Participants

Race	Frequency	Percentage	Cumulative Percentage
African	67	32.1	32.1
Asian	6	2.9	34.9
Coloured	14	6.7	41.6
Indian	26	12.4	54.1
White	96	45.9	100.0
TOTAL	209	100.0	

Table 4.1 shows that that most individuals in the sample were either white or African. Although the sample is not totally racially representative, it is indicative of the multi-racial South African population.

4.4.2.4 Current marital status of the realised sample

The distribution of the marital status of participants is detailed in Table 4.2.

Table 4.2 Frequency distribution of Current Marital Status of Participants

Current Marital Status	Frequency	Percentage	Cumulative Percentage
Married	108	51.7	51.7
Single	68	32.5	84.2
Separated	1	0.5	84.7
Divorced	17	8.1	92.8
Living with someone	15	7.2	100.0
TOTAL	209	100.0	

Table 4.2 indicates that the majority (51.7%) of the participants were married, whilst the remainder were single, separated or divorced.

4.4.2.5 The highest educational/academic qualification of the realised sample

The distribution of the highest educational/academic qualification obtained by individual participants is detailed in Table 4.3.

Table 4.3 Frequency distribution of the Highest Educational/Academic Qualification of Participants

Highest Educational/ Academic Qualification of Participants	Frequency	Percentage	Cumulative Percentage
Some secondary school	42	20.1	20.5
Certificate	22	10.5	31.2
Diploma	32	15.3	46.8
Degree	65	31.1	78.5
Postgraduate	44	21.1	100.0
Subtotal	205	98.1	
Missing Value	4	1.9	
TOTAL	209	100.0	

Table 4.3 shows that the realised sample is largely well educated with almost a third (31.1%) having a degree and just over a fifth (21.1%) having a postgraduate degree. Four participants did not report their educational qualifications.

4.4.2.6 Years in employment with current employer of the realised sample

The distribution of the number of years participants were employed by the current employer (i.e. the organisation under study) is detailed in Table 4.4.

Table 4.4 Frequency distribution of Participants' Years in Employment with Current Employer

Years in Employment with Current Employer	Frequency	Percentage	Cumulative Percentage
0 – 1	31	14.8	14.9
2 – 5	71	34.0	49.0
6 – 10	59	28.2	77.4
11 – 15	16	7.7	85.1
16 – 20	17	8.1	93.3
21 +	14	6.7	100.0
Subtotal	208	99.5	
Missing Value	1	0.5	
TOTAL	209	100.0	

Most of the participants reported that they were in employment with their current employer for up to 10 years (77.4%). Only 22.5% of participants had worked at the bank for 11 years or more. One participant did not report how many years he/she had been employed by the bank.

4.4.2.7 Years in current position of the realised sample

The distribution of the number of years participants were employed in their current position is detailed in Table 4.5.

Table 4.5 Frequency distribution of Participants' Years in Current Position

Years in Current Position	Frequency	Percentage	Cumulative Percentage
0 – 1	63	30.1	30.1
2 – 5	114	54.5	84.7
6 – 10	24	11.5	96.2
11 – 15	3	1.4	97.6
16 – 20	3	1.4	99.0
21 +	2	1.0	100.0
Total	209	100.0	

Table 4.5 indicates that the majority (54.5%) of participants had been employed in their current position for between 2 and 5 years. Close to one-third (30.1%) of the participants had been employed in their current position for less than 1 year. Only 11.5% of participants had been employed in their current position for between 6 and 10 years.

4.4.2.8 Current job level of the realised sample

The distribution of the level of the current positions held by the participants is detailed in Table 4.6.

Table 4.6 Current Job Level of Participants

Current Job Level of Participants	Frequency	Percentage	Cumulative Percentage
Clerk	47	22.5	24.4
Supervisor	3	1.4	25.9
Junior manager	46	22.0	49.7
Middle manager	54	25.8	77.7
Senior manager	42	20.1	99.5
Director	1	0.5	100.0
Subtotal	193	92.3	
Missing Value	16	7.7	
TOTAL	209	100.0	

Table 4.6 indicates that almost half the realised sample (45.9%) was employed in a junior management post or lower. 20.1% of participants held a position at senior management level. Sixteen participants did not report their current job level.

4.5 Data collection process

Employees who volunteered to participate in the study were given a consent form and a questionnaire pack to complete. The questionnaire pack included the following:

- Biographical Questionnaire;
- Overall Job Satisfaction scale;
- Social Support scale;
- Mindful Attention Awareness Scale (MAAS); and the
- Oldenburg Burnout Inventory (OLBI).

These measuring instruments are discussed below.

4.6 Measuring Instruments

4.6.1 Biographical Questionnaire

The biographical questionnaire was designed to obtain pertinent personal information concerning the participants. This information served to identify features specific to the realised sample. For example, respondents with considerable meditation training and/or experience can be expected to score high on mindfulness. The biographical questionnaire elicited the following information: age, race, religion, gender, marital status, number of children, highest level of education, duration of employment with current employer, time served in current position, current job level, economic status, general job satisfaction, perceived social support, mental health problems, therapeutic support and meditation training. A copy of the biographical questionnaire is included as Appendix C.

4.6.2 Overall Job Satisfaction

The Overall Job Satisfaction scale, which consists of only three items, was embedded in the biographical questionnaire in an effort to conserve paper, time and cost. A copy of the Overall Job Satisfaction measure is included as Appendix D.

This scale was originally developed by Cammann, Fichman, Jenkins and Klesh (1983) as part of the Michigan Organizational Assessment Questionnaire (OAQ). It uses three items to describe an employee's subjective response to working in her/his job and organisation. The scale provides a global indication of worker satisfaction with a job.

Responses on the Overall Job Satisfaction questionnaire are obtained using a 7-point Likert type scale where 1 = strongly agree, 2 = disagree, 3 = slightly disagree, 4 = neither agree nor disagree, 5 = slightly agree, 6 = agree and 7 = strongly agree. Items denoted with (R) are reverse scored.

Fields (2002) reported coefficient alpha values for this scale that range from 0.67 to 0.95. Job satisfaction correlated positively with positive affectivity, job involvement, distribution of risk exposure in the workplace, the economic value placed on health and safety, organisational commitment, job involvement, job focus and work complexity. Job satisfaction correlated negatively with employees' off-job focus, perceived danger, perceived risk, task distractions and intent to leave (Siegall & McDonald, 1995).

In order to determine if the Overall Job Satisfaction scale yielded reliable results for this study, Cronbach's alpha coefficient was determined. The data obtained from the realised sample was used for calculation purposes. The results are indicated in Table 4.7.

Table 4.7 Reliability Coefficient for the Overall Job Satisfaction scale

Cronbach's Alpha	Sample Size (n)	N of Items
0.732	206	3

The reliability coefficient is relatively high and indicates that the instrument has good internal consistency. The instrument was thus suitable for use in the South African context and yielded reliable results in the present study.

4.6.3 Social Support

The Social Support scale was also embedded in the biographical questionnaire as it only consists of four items. Once again stationery, time and cost were conserved. The Social Support scale is included in Appendix E.

This scale, developed by Caplan, Cobb, French, Van Harrison and Pinneau (1980), consists of items that describe the support an employee perceives is available from his/her co-workers, supervisor, spouse and family/friends. It describes the extent to which these three sources go out of their way to help

an employee, are easy to talk to, can be relied on when things get tough and are willing to listen to an employee's personal problems. The types of support have been characterised as emotional (easy to talk to and willing to listen to personal problems) and instrumental (make things easier and can be relied on). This measure has been widely used and remains one of the most established scales used to measure work social support (Lim, 1996)

Responses on the Social Support scale are obtained on a 5-point Likert-type scale where 4 = very much, 3 = somewhat, 2 = a little, 1 = not at all and 0 = don't have any such person.

Researchers using the Social Support scale have reported coefficient alpha values for the supervisor support subscale that range from 0.86 to 0.91 (Lee & Ashforth, 1993; Repeti & Cosmas, 1991) and coefficient alpha values for co-worker support that equal 0.79 (Repeti & Cosmas, 1991). Repeti and Cosmas (1991) found that supervisor and co-worker support correlated positively with overall job satisfaction and work group cohesiveness. Lim (1996) found that work-based support (supervisor and co-worker support) correlated negatively with job insecurity, job dissatisfaction and noncompliant job behaviours.

In order to determine if the Social Support scale yielded reliable results, Cronbach's alpha coefficient was determined. The data obtained from the realised sample was used during the analysis. The results are illustrated in Table 4.8.

Table 4.8 Reliability Coefficient for the Social Support scale

Cronbach's Alpha	Sample Size (n)	N of Items
0.809	204	12

The reliability coefficient is high and indicates that the Social Support scale has good internal consistency. The instrument was thus suitable for use in the South African context and yielded reliable results in the present study.

4.6.4 Mindful Attention Awareness Scale (MAAS)

In response to the rapid development of mindfulness-based treatments, researchers (Dimidjian & Linehan, 2003; Roemer & Orsillo, 2003) called for the development of psychometric assessments to measure mindfulness. Recent literature includes several newly developed self-report measures that assess a general tendency to be mindful in daily life. The measures are :

- The Freiburg Mindfulness Inventory (FMI; Buchheld, Grossman & Walach, 2001);
- The Mindful Attention Awareness Scale (MAAS; Brown & Ryan, 2003);
- The Kentucky Inventory of Mindfulness Skills (KIMS; Baer, Smith & Allen, 2004);
- The Mindfulness Questionnaire (MQ; Chadwick, Hember, Mead, Lilley & Dagnan, 2005);
- The Five Facet Mindfulness Questionnaire (FFMQ; Baer, Smith, Hopkins, Krietemeyer & Toney, 2006);
- The Toronto Mindfulness Scale (TMS; Lau et al., 2006);
- The Cognitive and Affective Mindfulness Scale-Revised (CAMS-R; Feldman, Hayes, Kumar, Greeson & Laurenceau, 2007); and
- The Southhampton Mindfulness Questionnaire (SMQ; Chadwick et al., 2008).

With the exception of the TMS (Lau et al., 2006) all of these measures were originally developed to assess trait mindfulness. The TMS is an assessment tool that measures state mindfulness. In a study that examined the psychometric characteristics of five of the mindfulness questionnaires mentioned above (MAAS, FMI, KIMS, CAMS & MQ) Baer et al. (2006) found that self-report mindfulness questionnaires have good psychometric

properties. This finding also provides support for the use of self-report assessment tools to measure mindfulness.

Brown and Ryan (2003), the developers of the Mindful Attention Awareness Scale (MAAS), as well as Kabat-Zinn (2003), argue that mindfulness is a naturally occurring characteristic that shows meaningful variation in non-clinical and non-meditating samples. The trait MAAS is based on the idea that mindfulness is a quality inherently present in people. This implies that while individuals may have the tendency to be mindful, specific levels of mindfulness can change over time.

The MAAS was designed to measure levels of mindfulness in the general population. The trait MAAS is in the public domain and special permission is not required to use it for research or clinical purposes. The trait MAAS has been validated for use with college students and community adults (a United States sample of 239 adults ranging in age from 18 to 77; Brown & Ryan, 2003), and for individuals with cancer (Carlson & Brown, 2005). Since its creation the MAAS has been utilised in numerous studies (Barnes, Brown, Krusemark, Campbell & Rogge, 2007; Boatright & McIntosh, 2008; Cordon & Finney, 2008; Ghorbani, Watson & Weathington, 2009; McCracken, Gauntlett-Gilbert & Vowles, 2007; McCracken & Thompson, 2009; O'Loughlin & Zuckerman, 2008; Schütze, Rees, Preece & Schütze, 2010; Shapiro, Oman, Thoresen, Plante & Flinders, 2008). The MAAS is now also available in various versions and adaptations. These versions and adaptations include a French adaptation (Jermann et al., 2009), a Swedish version (Hansen, Lundh, Homman & Wångby-Lundh, 2009), a Spanish version (Johnson, 2007) and a Dutch translation (Schroevers, Nykliček & Topman, 2008).

The MAAS is a 15-item, single factor self-report measure assessing individual differences in the frequency of mindful states. Participants rate the degree to which they function without attention to present-moment experience or without awareness in everyday activities. The MAAS uses a six-point Likert scale ranging from 1 (almost always) to 6 (almost never). Items include: "I forget a person's name almost as soon as I've been told it for the first time" and "It

seems I am 'running on automatic', without much awareness of what I'm doing". The measure takes 5 minutes or less to complete. To score the scale, the mean (average) rating across all items is computed. Higher scores reflect higher levels of dispositional (trait) mindfulness. Scores for this instrument usually range between 15 and 90.

The MAAS has demonstrated good internal consistency, with alpha coefficients ranging from 0.82 in an undergraduate sample (n=327) to 0.87 in a general adult sample (n=239). Test-retest reliability analysis with a sample of undergraduates revealed average item scores of 3.78 at time one. At time two, after four weeks, average item scores were 3.77 (t(59) = 0.11). Brown and Ryan (2003) compared MAAS scores from general adults in the community to those from members of a community Zen centre as part of their validity assessment. The authors showed that the practitioners of mindfulness meditation scored significantly higher than the control group. The number of years of meditation practice was also positively associated with MAAS scores. These findings suggest that those practicing meditation report increased attention to and broader awareness of present experience in everyday activities as measured by the MAAS.

Despite its relatively recent development, the MAAS has demonstrated good psychometric properties. The numerous language translations and wide use in empirical scientific research suggest that the research community has confidence in the MAAS as a mindfulness assessment tool. The MAAS is simple to administer, takes a few minutes to complete and is easy to score. The MAAS was used to assess mindfulness in this study.

Permission was obtained from the developer to use the MAAS scale. The MAAS scale is included as appendix F.

To determine how reliably the MAAS can be used in South Africa, the internal consistency of the MAAS was determined using Cronbach's alpha coefficient. The results are illustrated in Table 4.9.

Table 4.9 Reliability Coefficient for the MAAS

Cronbach's Alpha	Sample Size (n)	N of Items
0.904	203	15

The reliability coefficient is significantly high showing high levels of internal consistency. Hence, it was concluded that the results yielded by the instrument would be reliable and the instrument was viewed as suitable for use in the South African context.

4.6.5 Oldenburg Burnout Inventory (OLBI)

The Maslach Burnout Inventory (MBI) is the most commonly used measure of burnout. Despite its wide use, researchers have been troubled by some of the psychometric limitations of the MBI (Halbesleben & Demerouti, 2005). Demerouti, Bakker, Nachreiner and Schaufeli (2001) point out that all of the items within the three subscales are phrased in the same direction; the exhaustion and depersonalisation scales are all worded negatively and the personal accomplishment scale is worded positively. Demerouti and Nachreiner (1996) argue that this one-directional wording of items within subscales might have yielded an artificial clustering of factors due to the positively and negatively worded scales. Furthermore, the MBI focuses only on affective components of emotional exhaustion. Numerous researchers have suggested that the exhaustion component should include other aspects of exhaustion such as cognitive and physical exhaustion. This might more broadly capture the experience of exhaustion as a result of chronic work stress (Halbesleben & Demerouti, 2005).

Halbesleben and Demerouti (2005) suggest that the Oldenburg Burnout Inventory (OLBI) may be a suitable alternative measure of burnout. The OLBI was developed to mitigate the potential wording bias of the MBI (Halbesleben & Buckley, 2004). According to the developers the OLBI measures burnout

independent of type of occupation (Demerouti, Bakker, Vardakou & Kantas, 2003). The OLBI was originally developed in the German language (Perron & Hiltz, 2006). According to Demerouti et al. (2003), the OLBI was constructed and validated in an independent study of 293 German employees from various occupational fields, including human service professionals and blue-collar workers. Exploratory and confirmatory factor analysis has confirmed its two-dimensional factor structure.

According to Demerouti, Bakker, Nachreiner and Ebbinghaus (2002), the OLBI consists of two subscales. These subscales are named exhaustion and disengagement. Exhaustion is defined as a consequence of intensive physical, affective and cognitive strain (i.e. as a long-term consequence of prolonged exposure to certain job demands). The OLBI features questions designed to assess cognitive and physical components of exhaustion (e.g. excessive need for rest) as well as affective components (e.g. feeling emotionally drained) (Halbesleben & Demerouti, 2005; Demerouti et al., 2003). This marks a significant improvement of the OLBI over the MBI as it contains a broader conceptualisation of burnout (Halbesleben & Demerouti, 2005).

The OLBI defines disengagement as distancing oneself from work and experiencing negative or cynical attitudes and behaviours towards the work object, work content or work in general. The disengagement scale refers to attitudes toward the work task such as describing it as uninteresting, no longer challenging and even 'disgusting'. Disengagement includes devaluation and mechanical execution of work. The OLBI conceives burnout as being a syndrome of work-related negative experiences, including feelings of exhaustion and disengagement from work (Demerouti et al., 2002).

The exhaustion and disengagement subscales each contain eight items, making the OLBI a sixteen-item questionnaire. The exhaustion subscale items are generic and refer to general feelings of emptiness, overtaxing work overload, a strong need for rest and a state of physical exhaustion. Participants respond on a 4-point scale, ranging from 1 (totally disagree) to 4

(totally agree). The disengagement subscale contains the same response categories as the exhaustion subscale. Items 2, 4, 5, 8, 10, 12, 14 and 16 constitute the exhaustion subscale, whilst items 1, 3, 6, 7, 9, 11, 13 and 15 constitute the disengagement subscale.

In addition to factorial and confirmatory factor analysis the developers of the inventory also established discriminant validity and convergent validity for the scale. An English version of the OLBI has been validated among an English speaking population (Halbesleben & Demerouti, 2005). Halbesleben and Demerouti (2005) report internal consistency values ranging from 0.74 to 0.87 for the English version. Data from 2599 employees across two samples from the United States was used to determine the internal consistency. These studies included a generalised sample of working adults and a sample of fire department employees. Halbesleben and Demerouti (2005) also determined construct validity and factorial validity for the instrument.

Permission was obtained from the developer to use the scale. The OLBI measure is included as Appendix G.

To determine how reliably the OLBI can be used in South Africa, Crohbach's alpha was determined. The results are shown in Table 4.10.

Table 4.10 Reliability Coefficient for the OLBI in the South African context

Cronbach's Alpha	Sample Size (n)	N of Items
0.883	206	16

The reliability coefficient is high and indicates that the OLBI has good internal consistency. Therefore, the instrument was deemed suitable for use in the South African context. This finding indicates that the results obtained in the present study are reliable.

4.7 Statistical Analysis

Descriptive statistics in the form of measures of central tendency (e.g. the mean and the mode) and frequency distributions were employed to measure the prevalence of burnout in the sample. Pearson's correlation coefficients were calculated to test the hypothesised relationship between mindfulness and burnout. Multiple regression analysis was also conducted to determine the impact of mindfulness, job satisfaction and social support on burnout.

4.8 Ethical Considerations

Written approval was obtained from the corporate organisation to conduct the survey. All participants completed a consent form (please see Appendix A), which was dated and signed with the employee's full name and identification number. Participants were assured that confidentiality would be strictly maintained and that there would be no negative consequences resulting from their participation. In addition, no personal or identifying information will be disclosed to the organisation under any circumstances. The identifying details collected were used by the researcher to link the participants with those on the research sample list. Individuals were also offered the right to refuse to participate. Participants were given the opportunity to ask any question(s) pertinent to the research after they had completed the questionnaire. Those participants that displayed or expressed difficulties with coping were advised to use the free counselling services provided by the organisation. Participants were informed that the survey results would be made available to them at the University of Johannesburg. A copy of the dissertation will also be forwarded to the organisation's human resources department.

4.9 Conclusion

This chapter has provided an overview of the research methodology employed in this study. It includes a description of the research objectives, the hypotheses, the research design and sampling techniques used in the present

study. The next chapter focuses on the process of data analysis and the results yielded.

CHAPTER 5

RESULTS

5.1 Introduction

The previous chapter provided an overview of the research methodology employed in this study. The present chapter reports on the type of statistical methods that was used to analyse the collected data. In addition, the results of these statistical analyses will be reported. In order to facilitate easy reading, the results will be reported in the same order that the aims for the study had been stated.

Since the measures used for the purposes of the present study consisted of different numbers of items, a decision was made to standardize the scores yielded by these measures. Because this was done before any other form of statistical analyses was performed, a brief overview of the process will be provided next.

5.2 Standardization of scaled scores

In Chapter 4 (see 4.5), it was indicated that the following measuring instruments were used to facilitate the data collection process:

- Overall Job Satisfaction scale;
- Social Support scale;
- Mindful Attention Awareness Scale (MAAS); and the
- Oldenburg Burnout Inventory (OLBI).

As was mentioned previously (see 5.1), each of these instruments consisted of a different number of items. This posed some problems for comparing results across instruments and the calculation of a multiple regression to determine which variables contribute significantly to burnout. Since it was determined that all these instruments were reliable (see 4.6), a decision was

made to standardize the scores yielded by the different measures. Standardization took the form of calculating the mean for each measurement instrument. This standardized mean score were then taken into account during the computation of basic descriptive statistics, the establishment of correlation coefficients and performing the multiple regression analysis.

5.3 Results on the prevalence of burnout

In order to determine whether burnout was prevalent amongst the participants of the study, basic descriptive statistics were performed and frequency distributions were constructed. The main reasons for using these techniques were that it was necessary to determine a) the amount of participants that experienced burnout and b) the extent to which burnout occurred in the realised sample.

One of the measuring instruments used to determine the prevalence of burnout was the biographical questionnaire. Question 14 of the biographical questionnaire (see Appendix C) assessed the amount of participants experiencing mood disorders whilst partaking in the study. Research has shown that sufferers of burnout experience changes in mood states. These changes in mood states are often similar to symptoms of depression and emotional instability (Fischer, Kumar & Hatcher, 2007). The question, however, was formulated in such a way that one could determine if any occurring mood disturbance could be related to the experience of a chronic mood disorder, such as major depressive disorder or bipolar mood disorder, or if it was actually a result of burnout. The results to Question 14 are presented in the form of a frequency distribution in Table 5.1.

Table 5.1 Frequency distribution for participants' mood disorders

MOOD DISORDERS	Frequency	Percent	Valid Percent	Cumulative Percent
Bipolar/Temporal Lobe Epilepsy	1	0.5	0.5	97.1
Due to surgery	1	0.5	0.5	97.6
Many deaths in family	1	0.5	0.5	98.1
Menopausal	1	0.5	0.5	98.6
Stress from time to time	1	0.5	0.5	99.0
Stress/anxiety	1	0.5	0.5	99.5
Traumatic stress	1	0.5	0.5	100.0
Valid	202	96.7	96.7	96.7
TOTAL	209	100.0	100.0	

Question 15 of the biographical questionnaire (see Appendix C) assessed whether participants received any therapy, counselling or professional help. Schaufeli and Enzmann (1998) state that skills acquired through psychotherapy and therapeutic interventions mediate the effects of burnout. The question thus had a two-fold aim:

I. To determine if participants' need for counselling was related to the experience of a mood disorder or if it could be related to burnout; and
II. To account for the fact that any form of professional help could have mediating effects on participants' scores when assessed for the occurrence of burnout.

The results obtained on Question 15 are displayed in Table 5.2 as a frequency distribution.

Table 5.2 Frequency distribution of participants receiving treatment

TREATMENT	Frequency	Percent	Cumulative Percent
Therapy	8	3.85	3.85
Counseling	1	0.48	4.33
Professional Help	6	2.88	7.21
Not Applicable	193	92.79	100.0
TOTAL	208	100.0	

* Missing value = 1

It is possible that some participants, due to fears of stigmatisation, may not have disclosed their experience of mood disorders or participation in any form of treatment or counselling. To circumvent this possibility, and because the measuring instrument was developed to measure burnout, the results obtained on the OLBI were also analysed (see 4.6). The results of the basic descriptive statistical analysis are presented in Table 5.3.

Table 5.3 Descriptive statistics for the OLBI

DESCRIPTION	OLBI
Sample size	209
Mean	2.27
Std deviation	0.47
Minimum score	1.13
Maximum score	3.63

The maximum mean scale score one can obtain on the OLBI in general is 4.00. The mean scale score for the current sample is 2.27, which is relatively low in comparison to the general maximum scale of 4.00. As a result of this, and since mean scores are known to be sensitive to outliers (Gravetter & Forzano, 2006), further investigation of the OLBI was warranted. During this investigation, frequency distribution tables were constructed using the OLBI's two burnout subscales. To simplify interpretation of the results, the four Likert anchors (strongly agree, agree, disagree and strongly disagree) were collapsed into two categories (agree and disagree). Before the frequency

distributions were established, basic descriptive statistics were computed for each subscale.

The results with regards to the basic descriptive statistics for the exhaustion subscale are presented in Table 5.4.

Table 5.4 Descriptive statistics for the Exhaustion subscale of the OLBI

DESCRIPTION	EXHAUSTION
Sample size	209
Mean	2.30
Std deviation	0.51
Minimum score	1.00
Maximum score	3.50

The results with regards to the frequency distribution of the extent to which participants fall in either the agree/disagree category of the exhaustion subscale are presented in Table 5.5.

Table 5.5 Frequency Distribution of the Extent to which participants Agreed/Disagreed with the eight items of the Exhaustion subscale of the OLBI

EXHAUSTION SUBSCALE OF THE OLBI						
Items			Agree	Disagree	Total	Missing Value
1	There are days when I feel tired before I arrive at work	Count	152	56	208	1
		%	**73.1%**	26.9%	100.0%	
2	After work, I tend to need more time than in the past in order to relax and feel better	Count	98	110	208	1
		%	**47.1%**	52.9%	100.0%	
3	I can tolerate the pressure of my work very well	Count	185	23	208	1
		%	88.9%	11.1%	100.0%	
4	During my work, I often feel emotionally drained	Count	75	133	208	1
		%	**36.1%**	63.9%	100.0%	
5	After working, I have enough energy for my leisure activities	Count	115	93	208	1
		%	55.3%	**44.7%**	100.0%	
6	After my work, I usually feel worn out and weary	Count	86	122	208	1
		%	**41.3%**	58.7%	100.0%	
7	Usually, I can manage the amount of my work well	Count	190	18	208	1
		%	91.3%	8.7%	100.0%	
8	When I work, I usually feel energized	Count	153	55	208	1
		%	73.6%	26.4%	100.0%	

Table 5.5 indicate that the majority of participants (73.1%) were tired before they arrived at work. Almost half (47.1%) of the realised sample reported that they need more time after work to relax and gain composure. Over one-third of the participants (36.1%) reported that they feel emotionally drained whilst doing their work. Close to half (44.7%) of the participants indicated that they do not have enough energy after work for leisure activities.

As was mentioned previously, before the frequency distribution for the disengagement subscale was constructed, basic descriptive statistical analysis had been performed on it. The results of this analysis are displayed in Table 5.6.

Table 5.6 Descriptive statistics for the Disengagement subscale of the OLBI

DESCRIPTION	DISENGAGEMENT
Sample size	209
Mean	2.24
Std deviation	0.54
Minimum score	1.00
Maximum score	3.88

The results with regards to the frequency distribution of the extent to which participants fall in either the agree/disagree category of the disengagement subscale are displayed in Table 5.7.

Table 5.7 Frequency Distribution of the Extent to which participants Agreed/Disagreed with the eight items of the Disengagement subscale of the OLBI

DISENGAGEMENT SUBSCALE OF THE OLBI						
Items			Agree	Disagree	Total	Missing Value
1	I always find new and interesting aspects in my work	Count	161	48	209	0
		%	77.0%	23.0%	100.0%	
2	It happens more and more often that I talk about my work in a negative way	Count	51	158	209	0
		%	**24.4%**	75.6%	100.0%	
3	Lately, I tend to think less at work and do my job almost mechanically	Count	55	152	207	2
		%	**26.6%**	73.4%	100.0%	
4	I find my work to be a positive challenge	Count	162	46	208	1
		%	77.9%	22.1%	100.0%	
5	Over time, one can become disconnected from this type of work	Count	91	117	208	1
		%	**43.8%**	56.3%	100.0%	
6	Sometimes I feel sickened by my work tasks	Count	49	159	208	1
		%	**23.6%**	76.4%	100.0%	
7	This is the only type of work that I can imagine myself doing	Count	30	178	208	1
		%	14.4%	**85.6%**	100.0%	
8	I feel more and more engaged in my work	Count	157	51	208	1
		%	75.5%	24.5%	100.0%	

Almost a quarter (24.4%) of the participants reported that they tend to frequently talk about their work in a negative way. Just over a quarter (26.6%) of the participants disclosed that they tend to do their job almost mechanically. Furthermore, close to half (43.8%) of the participants reported that a worker could become disconnected from the specific type of work that the participants themselves were doing at the time of testing. About a quarter (23.6%) of the participants reported feeling sickened by their work tasks.

However, a majority (85.6%) of the participants reported that the type of work they do is the only type of work they can imagine themselves doing.

5.4 Results concerning the existence of a relationship between burnout and mindfulness

After the analyses regarding the prevalence of burnout were completed, the next step was to determine if a relationship exists between burnout, as measured by the OLBI, and mindfulness, as measured by the MAAS. Part of this process involved describing the scores obtained by the realised sample on both measures. Since the basic descriptive statistics analyses for burnout had already been conducted (see Table 5.3), all that remained was to establish results pertaining to the basic descriptive statistics of the MAAS.

5.4.1 Descriptive statistics for the Mindful Attention Awareness Scale (MAAS)

The results in Table 5.8 illustrate the central tendency, standard deviation and range obtained on the MAAS by the realised sample.

Table 5.8 Descriptive statistics for the MAAS

DESCRIPTION	MAAS
Sample size	209
Mean	4.36
Std deviation	0.89
Minimum score	1.21
Maximum score	6.00

The maximum mean scale score one can obtain on the MAAS in general is 6.00.

5.4.2 Results for the correlation between mindfulness and burnout

In order to determine the relationship between burnout and mindfulness, the scores obtained on the OLBI was correlated with the scores on the MAAS. Before the correlation coefficient was computed, the data was tested for curvilinearity and a scatter plot was generated. This indicated the presence of a linear relationship between the scores of the OLBI and the MAAS. As a result, Pearson's product-moment correlation coefficient was used to measure the strength of the relationship between burnout and mindfulness. The results of this correlation are reported in Table 5.9.

Table 5.9 Correlations between the OLBI and the MAAS

		OLBI	MAAS
OLBI	Pearson Correlation	1	-.543(**)
	Sig. (2-tailed)		.000
	N	205	205
MAAS	Pearson Correlation	-.543(**)	1
	Sig. (2-tailed)	.000	
	N	205	205

** Correlation is significant at the 0.01 level (2-tailed).

In addition to establishing the strength of the correlation between mindfulness and burnout, a multiple regression analysis was deemed necessary to determine which of the independent variables (mindfulness, job satisfaction and social support) contributed most significantly to explain the variance in burnout scores. It was theorised that the analysis would also provide some indication of the extent to which the significant independent variables contribute(s) to burnout as dependent variable. Before the multiple regression analysis was conducted, descriptive statistics were computed for the Overall Job Satisfaction and Social Support scales.

5.4.3 Descriptive statistics for the Overall Job Satisfaction scale

The results presented in Table 5.10 illustrate the central tendency, standard deviation and range obtained by the realised sample on the Overall Job Satisfaction scale.

Table 5.10 Descriptive statistics of the Overall Job Satisfaction scale

DESCRIPTION	OVERALL JOB SATISFACTION
Sample size	206
Mean	5.53
Std deviation	1.13
Minimum score	2.33
Maximum score	7.00

The maximum mean scale score one can obtain on the Overall Job Satisfaction scale in general is 7.00.

5.4.4 Descriptive statistics for the Social Support scale

The results depicted in Table 5.11 illustrate the central tendency, standard deviation and range obtained by the realised sample on the Social Support scale.

Table 5.11 Descriptive statistics of the Social Support scale

DESCRIPTION	SOCIAL SUPPORT
Sample size	208
Mean	3.24
Std deviation	0.49
Minimum score	1.73
Maximum score	4.00

The maximum mean scale score one can obtain on the Social Support scale in general is 5.00.

5.4.5 Backward multiple regression analysis

Several forms of regression analysis could be used during the computation of a multiple regression analysis (Pallant, 2007). Because of its simplicity, it was decided to use a backward multiple regression analysis within the context of the present study. In a backward multiple regression analysis, all the independent variables are entered during the first step into the model equation. In subsequent steps, non-significant variables are removed. This process continues until no more independent variables are significant (Miles & Shevlin, 2001).

The independent variables used during the current procedure were the mean scale scores participants obtained on the MAAS, Overall Job Satisfaction and the Social Support scales. As was stated in 5.3.2, the main aim of the analysis was to determine which of these independent variables contributed most significantly to burnout. Preliminary analyses were conducted on the data to ensure no violation of the assumptions of normality, linearity, multicollinearity and homoscedasticity. Since all the independent variables entered in step 1 contributed significantly in explaining burnout, no subsequent steps were needed. These three variables (mindfulness, job satisfaction and social support) explained 59.3% of the variance in burnout [$F(3, 198) = 96.31$, $p<0.001$]. The Overall Job Satisfaction scale recorded the highest beta value [beta = -0.472, $p < .001$]. Second highest was the MAAS [beta = -0.379, $p < .001$], followed by the Social Support scale [beta = -0.175, $p < .001$].

Since both job satisfaction and social support contributed significantly to explaining burnout, a decision was made to determine how these variables correlated with burnout. Subsequently, Pearson's correlation coefficient was computed for these scales. The results are presented in Table 5.12.

Table 5.12 Correlations between the OLBI, MAAS, Overall Job Satisfaction scale and Social Support scale

		OLBI	MAAS	OVERALL JOB SATISFACTION	SOCIAL SUPPORT
OLBI	Pearson Correlation	1	-.543(**)	-.636(**)	-.502(**)
	Sig. (2-tailed)		.000	.000	.000
	N	205	205	202	204
MAAS	Pearson Correlation	-.543(**)	1	.230(**)	.317(**)
	Sig. (2-tailed)	.000		.001	.000
	N	205	205	202	204
OVERALL JOB SATISFACTION	Pearson Correlation	-.636(**)	.230(**)	1	.439(**)
	Sig. (2-tailed)	.000	.001		.000
	N	202	202	202	202
SOCIAL SUPPORT	Pearson Correlation	-.502(**)	.317(**)	.439(**)	1
	Sig. (2-tailed)	.000	.000	.000	
	N	204	204	202	204

** Correlation is significant at the 0.01 level (2-tailed).

5.5 Conclusion

This chapter presented the results of the data obtained when the OLBI, MAAS, Overall Job Satisfaction and Social Support scales were administered to the participants of the study. In the following chapter, these results will be discussed. The limitations of the present study, as well as recommendations for future research will also be addressed.

CHAPTER 6

DISCUSSION, LIMITATIONS, RECOMMENDATIONS AND CONCLUSION

6.1 Introduction

The central aim of this study was to determine the prevalence of burnout in a South African corporate organisation. The literature indicated that burnout is a reality in Europe and North America. Most of the large-scale burnout research has been conducted in countries in these regions. It was postulated that burnout might be prevalent in a South African corporate organisation. The literature further indicated that mindfulness has the potential to ameliorate some of the symptoms of burnout. It was therefore hypothesised that a statistically significant relationship between mindfulness and burnout might exist among employees in a South African corporate organisation. In order to test this hypothesis the study also had to ascertain the potential usefulness of a burnout-testing instrument (the OLBI) and a mindfulness-testing instrument (the MAAS).

Chapter 5 detailed the results of the study. The final chapter provides detailed explanations of these results. In order to facilitate reading, the interpretation of results and accompanying discussions are presented in the same order in which the objectives and hypotheses were formulated. In addition the limitations of the study are discussed and recommendations regarding future studies on burnout within the South African corporate context are made.

6.2 Discussion of the results regarding the prevalence of burnout

The study initially aimed to explore the extent of burnout among employees in a South African corporate organisation. In order to ascertain the prevalence of burnout it was necessary to eliminate the possibility that participants' mood disturbances were the result of a chronic mood disorder. Table 5.1 indicated that less than one percent of the participants suffered from any actual mood

disorder. This result implies that participants' mood disturbances might be due to burnout.

Statistical analyses of the OLBI were conducted to determine the prevalence of burnout in the sample. The descriptive statistics (Table 5.3) indicate that the mean scale score for burnout was average (M = 2.27). The standard deviation was 0.47. This could indicate that the realised sample was rather homogeneous and little variety could be observed with regards to burnout scores. However, as the banking industry is known for its competitive nature, it is possible that participants underreported their experience of burnout. To investigate this further, individual responses were examined and frequency distributions were established for the two subscales (Exhaustion and Disengagement) of the OLBI (results are presented in Tables 5.5 & 5.7)

6.2.1 Exhaustion

Schaufeli and Enzmann (1988) identified exhaustion as the "primary characteristic" of burnout (p. 36). Therefore, the mean scale score for Exhaustion (2.30) was compared to the mean scale score of the OLBI (2.27). These scores do not differ significantly. The mean scale score for Exhaustion is therefore average. However, when the frequency distribution for the Exhaustion subscale is scrutinized more closely, an interesting trend emerges.

A close look at Table 5.5 indicates a discrepancy between the scores on items 1, 2, 4, 5 and 6 and items 3, 7 and 8. On the one hand, a considerable proportion of the sample indicated that they experienced some forms of exhaustion. On the other hand, participants indicated that they are able to manage their workload and actually feel energised while they are working.

The Job Demands-Resources Model (JD-R Model) was used to explain this discrepancy. As discussed previously, the JD-R Model explains burnout in terms of the presence of job demands and the absence of job resources. Within the JD-R model, the presence of job demands (e.g. work pressure) and

the absence of job resources (e.g. social support) relate to burnout through a psychological energetic process. In contrast, the presence of job resources is associated with work engagement through a motivational process (Van den Broeck, Vansteenkiste, De Witte & Lens, 2008). Job demands refer to the pace and amount of work, mental load and emotional load. Job resources consist of three aspects - growth opportunities, organisational support and advancement (Rothmann & Essenko, 2007). The JD-R model suggests that chronic job demands such as work overload exhaust employees' mental and physical resources, which may lead to health problems. In a sample of 156 Dutch nurses Janssen, Schaufeli and Houkes (1999) found that emotional exhaustion is significantly and strongly associated with work overload. Research in South Africa has confirmed the relationship between burnout and job demands (Levert et al., 2000; Pretorius, 1994). The JD-R model also states that the presence of job resources such as supervisory support may serve as a buffer against the impact of job demands. The Exhaustion scores thus suggest the existence of buffering job resource(s). This suggestion is supported by studies that have shown that job resources are negatively related to exhaustion (Bakker, Demerouti, & Verbeke, 2004) and positively related to work engagement (Bakker, Demerouti & Schaufeli, 2005).

The homogenous nature of the sample could also be responsible for the discrepancy in the scores. Maslach and Leiter's (1997) research suggests that, despite common underlying organisational stressors, people react differently to burnout. Due to the small amount of variation in the measurement of burnout in the sample, it was difficult to determine the prevalence of burnout. The discrepancy in the scores might indicate that some of the participants were exhausted and, as a result, distorted their responses on the exhaustion subscale. This is a concern that has been raised in the past when using the JD-R model to investigate burnout in corporate organisations.

Bakker and Demerouti (2007) conclude that job resources refer to the physical, psychological, social or organisational characteristics of the job that assist in achieving work goals, reducing job demands and stimulating

personal growth. The researchers conclude that job resources can be identified at an organisational level, an interpersonal level, a social level and a task-related level. However, the JDR-model does account for an intrapersonal level (i.e. a level internal to the individual). This poses a problem as the intrapersonal level includes personal attributes that the individual brings to the work context. It is thus difficult to determine a person's own resilience and vulnerability to exhaustion. The existence of job resources could thus overshadow the fact that, on an intrapersonal level, the individual has problems coping with job demands.

The individual and the organisation in which he/she works are not the only factors that were taken into account when searching for possible reasons for the discrepant Exhaustion scores. Another possible explanation might be that more than two-thirds of the participants reported that they are tired before they arrived at work (see item 1, Table 5.5). Traffic density in Johannesburg is high, and commuters are compelled to wake up very early. The participants' response to item 1 suggests that driving to work may be an extraneous variable and a demand stressor that might impact on participants' level of exhaustion when they arrive at work. Exhaustion, as defined by the developers of the OLBI, implies affective, cognitive and physical exhaustion (Bakker et al., 2004). The high score on item 1 combined with the relatively high score on the Overall Job Satisfaction scale (79% of participants reported overall job satisfaction) suggests that exhaustion might be a function of commuting to work rather than the participants' work demands.

This discussion suggests that the lowered exhaustion scores might be a reflection of the participants' daily life experience in a busy metropolis such as Johannesburg. Johannesburg is known for its fast paced lifestyle and individuals are expected to display a lot of ambition and strong competitive drives. Simply working in Johannesburg could be an extraneous variable that influenced participants' exhaustion scores.

A further possible explanation for the discrepancy in the Exhaustion scores might relate to the finding that some of the participants were receiving

professional therapeutic help at the time of the study (see Table 5.2). Therapy enhances mindfulness and thus has ameliorating effects on burnout (Martin, 1997). This 7% of the sample may therefore have registered lowered levels of burnout and higher levels of mindfulness due to therapeutic interventions.

Lastly, the possibility exists that the low Exhaustion scores could be the result of socially desirable responses. Considering the relatively high scores on item 1 (73.1% reported feeling tired before arriving at work), item 2 (47.1% reported needing more time to recuperate after work), item 4 (36.1% reported often feeling emotionally drained whilst working), item 5 (44.7% reported not having enough energy for leisure activities) and item 6 (41.3% reported feeling worn out after work) it would be reasonable to expect participants to have difficulty coping with work. However, participants reported that they tolerate their work pressure (item 3) very well (88.9%) and that they manage (91.3%) their workload (item 7). Worldwide unstable economic trends partnered with volatile job markets might have led participants' to feel compelled to present an idealised image of themselves. This suggests that participants may have been denying their experience of exhaustion. Cordes and Dougherty (1993) indicate that exhaustion is the first stage of burnout, therefore if participants are denying the experience of exhaustion then actual rates of burnout might be higher than indicated by the burnout scores in this study.

6.2.2 Disengagement

Freudenberger (1974) describes disengagement as representing an extensive and intensive reaction that involves an emotional, cognitive and behavioral rejection of the job. Disengagement delineates occupational disillusionment. Contextually, it refers to distancing oneself from one's work, work objects (e.g. computers, recipients) or work content (e.g. providing services).

The realised sample's mean scale Exhaustion score (M = 2.30) is slightly higher than the mean scale score for Disengagement (M = 2.24). This is not an unexpected finding because disengagement often occurs in response to

exhaustion (Halbesleben & Buckley, 2004). Burnout is a developmental process (Cordes et al., 1997). Therefore, recognising the symptoms of burnout and understanding its process will enable employees and managers to effectively adapt to the changing environment. The results of these two subscales (Exhaustion and Disengagement) therefore suggest that some participants were fatigued but still motivated in their jobs. It is not known whether they will be able to sustain this motivation.

According to Golembiewski, Munzenrider and Stevenson (1986), workers pass through several phases in the development of burnout. The first phase involves the experience of low depersonalisation/disengagement and low levels of exhaustion as employees endeavour to cope with the stresses of the job. An overall review of the disengagement subscale (see Table 5.7) indicates that disengagement is relatively low in comparison to engagement. The high scores on item 1 (77% reported being excited about work), item 4 (77.9% reported finding work to be a positive challenge) and item 8 (75.5% reported feeling more engaged with work) indicate that participants in the sample are largely engaged (see Table 5.7). Factors such as job satisfaction, personal attributes of individual participants and socially desirable responses could also explain the low disengagement scores. This is due to the negative correlation between burnout and engagement (Schaufeli & Bakker, 2004). Furthermore, the JD-R model asserts that job resources are inversely associated with disengagement (Demerouti et al., 2001). Therefore, the presence of job resources among the participants in this sample may be facilitating the participants' engagement in their work context.

However, an item-by-item analysis of the Disengagement scale (see Table 5.7) revealed a degree of disengagement. About a quarter of the participants reported often talking negatively about their job (item 2), just over a quarter of the participants reported doing their job mechanically (item 3), almost half of the participants reported that one can become disconnected from their type of job (item 5) and about a quarter of the participants reported feeling sickened by their work tasks (item 6). Leiter and Schaufeli (1996) state that disengagement is a problem in careers that value and mandate personal

sensitivity to service recipients. In the case of the banking industry recipients are customers who utilise banking services and co-workers who receive services from departmental structures within the organisation (e.g. Human Resources Division). Leiter (1993) argues that cynicism/disengagement stems from exhaustion. One of the most commonly cited negative consequences of burnout is a reduction in job performance (Maslach, 1982), which is of great significance to corporate organisations.

Although the results of the Exhaustion and Disengagement subscales of the OLBI appear to be conflicting and make it difficult to reach definite conclusions, it must be remembered that, as a result of time constraints and the limited scope of the present study, extraneous variables were not controlled for. This is of concern as many other variables, such as demographics, are related to the occurrence of burnout.

Maslach et al. (2001) confirm that, age has an impact on burnout. Their studies revealed that burnout is higher among younger employees than among those over 30 years of age. They also found that marital status impacts on the occurrence of burnout. Studies found that unmarried employees (especially men) are more prone to burnout than married employees. Single employees experience higher burnout levels than divorced employees (Maslach et al., 2001). Maslach et al. (2001) also note that individuals with a high level of education report higher levels of burnout than less well educated employees.

Time constraints and the limited scope of this study prevented the exploration of biographical data. It is thus strongly recommended that future studies investigate these variables.

6.3 Discussion of the results pertaining to the relationship between burnout and mindfulness

This study also aimed to investigate the relationship between burnout and mindfulness. In order to achieve this aim, the following hypotheses were set:

H_0: There is no relationship between mindfulness and burnout among employees in a South African corporate organisation.

H_1: There is a statistically significant relationship between mindfulness and burnout among employees in a South African corporate organisation.

Before the null hypothesis was tested, descriptive statistics for the Mindful Attention Awareness Scale (MAAS) were calculated. Since descriptive statistics had already been computed for the OLBI (see Table 5.3) in order to measure the prevalence of burnout, it was deemed unnecessary to repeat the analysis for a second time.

In comparison to the average mean scale score obtained on the OLBI (M = 2.27), the mean scaled score for mindfulness was high (M = 4.36). However, the standard deviation was small (s = 0.89), indicating a homogenous sample with little variance with regards to mindfulness. The small standard deviation might be explained by the idea that the state of mindfulness rarely occurs on a continuous basis (Germer et al., 2005). People tend to be mindful to one degree or another. The situation in which people find themselves impacts on the amount of mindfulness displayed (Germer et al., 2005). Although this might lead one to belief that mindfulness is of little value when dealing with burnout, the opposite is actually true. Baer, Smith, Hopkins, Krietemeyer and Toney (2006) note that several empirical studies have reported the efficacy of mindfulness-based interventions. In addition, mindfulness-based interventions have been associated with a reduction in symptoms of stress (and by implication burnout) across a wide range of populations.

Pearson product moment correlation coefficients were calculated to test the hypothesis regarding the existence of a relationship between burnout (as measured by the OLBI) and mindfulness (as measured by the OLBI and the MAAS). The results were reported in Table 5.9 and indicate a moderately significant negative correlation between burnout and mindfulness [r = -0.543, p <0.01]. As a result, the null hypothesis was rejected in favour of the alternative hypothesis.

Thus, the present results confirm that mindfulness-based interventions would assist in the alleviation of burnout (Baer et al., 2006). The results also support the research findings of Langer et al. (cited in Langer & Moldoveneanu, 2000). These authors conducted research in a business context and aimed to investigate the link between meditation and decreased stress. Langer et al. (cited in Langer & Moldoveneanu, 2000) found that increases in mindfulness were associated with decreases in burnout. In a study with Motorola involving managers, engineers and factory workers (n=48), Barrios-Choplin et al. (1997) found that mindfulness training resulted in significant decreases in tension, anxiety, nervousness and physical symptoms of stress from pretest to posttest. Furthermore, another study investigated the effects of teaching people a mindfulness-based training course to reduce stress. The study found that the mindfulness-based training approach could be a potentially cost-effective method to combat stress and burnout (Gold et al., 2010).

After it was established that mindfulness has an inverse relationship with burnout and could be used as an intervention to prevent and/or treat the symptoms of burnout, a backward multiple regression analysis was conducted to determine which independent variable (represented by the scores on the MAAS, the Overall Job Satisfaction and the Social Support scales) would contribute most significantly to burnout as measured by the OLBI. Conducting this analysis became even more important when it became clear from the results that job satisfaction and social support might play tremendous roles in the occurrence of burnout (see 6.2, 6.2.1 & 6.2.2).

The backward multiple regression analysis also aimed to establish the relative strength of the significant contributor(s) to burnout. The results of the multiple regression analysis were reported in Table 5.12 and indicate that mindfulness, job satisfaction and social support all contributed significantly in explaining burnout. The three variables together explained 59.3% of the variance in burnout [$F(3, 198) = 96.31$, $p<0.001$]. Job satisfaction was the most significant contributor to burnout in this study, recording the highest beta value [beta = -.472, $p < .001$].

to determine how these variables correlated with burnout as represented by the OLBI. Pearson's correlation coefficient was subsequently computed for these scales. As expected, the results of the analysis (see Table 5.12) confirmed the results of the backward multiple regression. In addition, an interesting positive significant correlation between job satisfaction and mindfulness [r = 0.230, p <0.01] was noted. The Barrios-Choplin et al. (1997) study mentioned earlier reports similar findings. This study found that mindfulness training not only resulted in decreased experiences of tension, anxiety, nervousness and physical symptoms of stress, it also resulted in significant increases in contentment and job satisfaction. This suggests that mindfulness promotes job satisfaction. However, studies that focus on the relationship between mindfulness and job satisfaction are limited. More research is needed in this regard.

Mindfulness also displayed a significant correlation with social support [r = 0.317, p <0.01]. In fact, 31.7% of the variance in mindfulness in this sample was due to social support. This suggests that having social support contributes to being mindful. However, little research has been conducted on the relationship between mindfulness and social support. Consequentially, these findings cannot be compared to other research findings. However, the JD-R model posits that social support is a job resource. It can therefore be deduced that mindfulness may also be considered a job resource that would moderate job demands and eventually burnout.

The results of the correlational analysis also showed a moderate significant correlation between social support and job satisfaction [*r* = 0.439, p<0.01]. Indications are that social support makes a small contribution to job satisfaction. Jansen et al. (1996) found that among community nurses (n=804) social support (i.e. peer support) has a positive influence on job satisfaction. A study on police officers (n=398) found that social support (i.e. supervisor support) was a positive predictor of job satisfaction (Brough & Frame, 2004). Although these studies support the findings of this study, research regarding the relationship between social support and job satisfaction in corporate organisations is uncommon.

In the spirit of good research, the limitations of the present study will now be discussed.

6.4 Limitations of the present study

As with all studies, the present study has certain limitations. One limitation of this study is the small sample size obtained due to the low response rate. The realised sample constituted less than 10% of the target population and all results must therefore be interpreted with caution. Future research should include a larger and more representative sample.

The study is further limited by the Oldenburg Burnout Inventory's (OLBI) apparent lack of embedded items to identify socially desirable responses. Faking good responses might be indicative of denial of problematic characteristics and faking bad responses indicative of malingering. The results of the Exhaustion and Disengagement subscales hint at the possibility that participants might have provided socially desirable responses (see 6.2 for discussion of this issue). It is possible that the participants faked good responses due to a lack of trust in the researcher, the competitive nature of the banking industry and fears regarding confidentiality and anonymity.

Finally, this study sampled individuals from a single corporate organisation. This could have contributed to the lack of variance in the sample and ultimately have limited the extent to which the findings of the present study can be generalised to other contexts.

6.5 Recommendations for future research

A factor that made its presence felt in the present research was the effect of commuting from home to work. A high percentage of participants reported that they were tired even before they arrived at work (see item 1 in Table 5.4). As a result, it is suggested that travel arrangements, time on the roads and the importance of being punctual should be considered in future research on exhaustion in particular and burnout in general. Such studies also need to

determine whether these factors are contributors to burnout or if they should be treated as extraneous variables impacting negatively on the individual and contributing to job demands. The JD-R model suggests that when job demands require high effort they may become stressors and elicit negative consequences such as burnout (Demerouti et al., 2001; Schaufeli & Bakker, 2004). In a busy metropolis such as Johannesburg commuting to and from work daily could have significant ramifications for employees' energy levels, time, performance, mood and commitment to an organisation.

Another recommendation relates to the use of the OLBI and the MAAS in the South African context. More research should be conducted on these instruments. The instruments rendered promising results in the present study and therefore large-scale standardization studies should be conducted. Until these instruments have been properly adapted for local conditions, the use of the OLBI and the MAAS will be limited to research.

Due to the limited scope of this study, categorical variables such as gender, age and marital status could not be factored into the investigation of burnout. It is therefore proposed that more research is needed in South Africa on the impact of these variables on burnout. Future research also needs to be undertaken to determine whether gender differences are present in the experience of burnout in the multicultural South African corporate setting. Such research should also focus on the multiple social roles that women fulfil in society. It is postulated that as more women enter the labour market, the unequal division of household labour among couples with traditional values might contribute towards the experience of exhaustion and facilitate burnout. Researchers who examined division of household labour during the 1970s and 1980s found that employed women still performed the majority of household labour (Coltrane, 2000). If future studies could determine the factors contributing to burnout then burnout prevention could be facilitated amongst vulnerable groups such as married women and younger employees.
In a multicultural society such as South Africa, ethnicity is the cornerstone of equity and representation. Few studies have assessed this demographic variable. It is suggested that future studies in the South African organisational

context focus on ethnicity. It is expected that people from different ethnic backgrounds will have different views on work, different relationships with their employer, different expectations from employers, different access to social support structures and different job expectations. All these factors may have a considerable impact on the occurrence of burnout. Affirmative action should also be researched as it represents an example of a uniquely South African organisational challenge, which might contribute to the experience of burnout.

One difficulty encountered during this study was the apparent scarcity of research regarding mindfulness, job satisfaction and social support in corporate organisations. It is therefore suggested that future studies should focus on the relationship between mindfulness and other job resources such as job satisfaction and social support in corporate environments.

The mindfulness literature reviewed in chapter 3 suggests enormous potential for the use of mindfulness as a treatment modality for numerous pscho-physiological problems. Tacón and McComb (2009) conclude that mindfulness provides a means of self-monitoring, which provides opportunities for the individual to take charge of his/her own healing. In a country where public health resources are scarce, mindfulness-based therapies might be liberating. There is scant research on this construct in the South African context. It is therefore suggested that previous well-constructed foreign studies be replicated and new research conducted that accommodates the unique South African multicultural population.

Finally, the results of this study suggest that personal attributes may have impacted on the scores obtained. It is proposed that future research should investigate the possibility of expanding the JD-R model to include the intrapersonal level. This would advance the integration of the field of Personology into the study of occupational stress. It might also encourage researchers to consider the personal attributes of the individual and the relationship of such attributes to the experience of burnout and mindfulness. In addition, personal attributes could explain why some people experience

burnout in organisations where others seem to thrive. Focusing on personal attributes also has the advantage of allowing organisations to learn more about how their employees react to job demands and perceive social support.

6.6 Conclusion

This study aimed to explore the extent of burnout among employees in a South African corporate organisation and to examine the relationship between burnout and mindfulness. It was hypothesised that there is a statistically significant relationship between mindfulness and burnout among employees in a South African corporate organisation. The study also aimed to determine whether the OLBI, as a measure of burnout, and the MAAS, as a measure of mindfulness, were reliable for use in a South African context. The study found high reliability coefficients for both the MAAS and the OLBI, providing evidence that the instruments were suitable for use in the South African context.

The results of this research confirmed that burnout was prevalent in the organisation. However, the prevalence was not as extensive as expected. Nevertheless, results indicated that some participants were exhausted. An unexpected finding was that scores obtained on a Job Satisfaction scale were the highest contributors to explaining the variance that occurred in burnout scores. The evidence alluded to the presence of job resources that mediated between job demands and burnout. This provides support for the use of the JD-R model as a framework for examining the causes of burnout at the organisational as well as the individual level.

A key finding of this study was the existence of a significant inverse correlation between burnout and mindfulness. This suggests that all the therapeutic benefits of mindfulness training can potentially be accessed to ameliorate the negative effects of burnout. Realistically, organisations usually react to the problem of burnout after it has become prevalent. The cost of pre-emptively reducing environmental stresses may be prohibitive. It is therefore

reasonable to rather pre-emptively focus on boosting employee resilience against burnout by enhancing mindfulness. Although this state of mind requires training and effort on the part of the individual, it can provide a means of self-monitoring, self-regulating arousal and self-insight. In the words of the great Rumi, a 12th century Persian mystic and Sufi poet (Freke, p. 83):

Let me paint a parable for you.
There is a river of fresh water
and a world-consuming fire.
Few desire fire. Most want water.
But some sort of topsy-turvy game is being played,
because those who immolate themselves in the flames
find themselves floating in cool water,
while those who bathe themselves in the water
re-emerge in the scorching flames.
Very few understand this mystery,
so very few voluntarily choose fire.

REFERENCES

Alexander, C.N., Langer, E.J., Newman, R.I., Chandler, H.M. & Davies, J.L. (1989). Transcendental meditation, mindfulness, and longevity: An experimental study with the elderly. *Journal of Personality and Social Psychology, 57*(6), 950-964.

American Psychiatric Association (2000). *Quick reference to the diagnostic criteria from DSM-IV-TR.* Arlington, VA: Author.

Anderson, N.D., Lau, M.A., Segal, Z.V. & Bishop, S.R. (2007). Mindfulness-based stress reduction and attentional control. *Clinical Psychology and Psychotherapy, 14*, 449-463.

Astin, J.A. (1997). Stress reduction through mindfulness meditation. *Psychotherapy and Psychosomatics, 66*, 97-106.

Baba, V.V., Galperin, B.L. & Lituchy, T.R. (1999). Occupational mental health: a study of work-related depression among nurses in the Caribbean. *International Journal of Nursing Studies, 36*(2), 163-169.

Bach, P. & Hayes, S.C. (2002). The use of Acceptance and Commitment Therapy to prevent the rehospitalization of psychotic patients: A randomized controlled trial. *Journal of Consulting and Clinical Psychology, 70*, 1129-1139.

Baer, R.A. (Ed.). (2006). Mindfulness-based treatment approaches. Clinician's guide to evidence base and applications. San Diego, CA: Academic Press.

Baer, R.A., Smith, G.T. & Allen, K.B. (2004). Assessment of mindfulness by self-report: The Kentucky Inventory of Mindfulness Skills. *Assessment, 11*(3), 191-206.

Baer, R.A., Smith, G.T., Hopkins, J., Krietemeyer, J. & Toney, L. (2006). Using self-report assessment methods to explore facets of mindfulness. *Assessment, 13*(1), 27-45.

Bakker, A.B. & Demerouti, E. (2007). The job demands-resources model: state of the art. *Journal of Managerial Psychology, 22*(3), 309-328.

Bakker, A.B., Demerouti, E. & Euwema, M.C. (2005). Job resources buffer the impact of job demands on burnout. *Journal of Occupational Health Psychology*, 10, 170-180.

Bakker, A.B., Demerouti, E. & Schaufeli, W. (2002). Validation of the Maslach Burnout Inventory - General Survey: An Internet study. *Anxiety, Stress and Coping: An International Journal, 15*, 245-260.

Bakker, A.B., Demerouti, E. & Schaufeli, W.B. (2005). The crossover of burnout and work engagement among working couples. *Human Relations, 58*, 661-689.

Bakker, A.B., Demerouti, E. & Verbeke, W. (2004). Using the Job Demands-Resources model to predict burnout and performance. *Human Resource Management, 43(1)*, 83-104.

Bakker, A.B., Le Blanc, P.M. & Schaufeli, W.B. (2005). Burnout contagion among intensive care nurses. *Journal of Advanced Nursing, 51*(3), 276–287.

Barnes, S., Brown, K.W., Krusemark, E., Campbell, W.K. & Rogge, R.D. (2007). The role of mindfulness in romantic relationship satisfaction and responses to relationship stress. *Journal of Marital and Family Therapy, 33*(4), 482-500.

Barrios-Choplin, B., McCarty, R. & Cryer, B. (1997). An inner quality approach to reducing stress and improving physical and emotional well-being at work. *Stress Medicine, 13*(3), 193-201.

Beemsterboer, J. & Baum, B.H. (1984). Burnout: Definitions and health care management. *Social Work in Health Care, 10*, 97-109.

Beins, B.C. (2009). *Research methods: A tool for life.* Boston, MA: Pearson Education, Inc.

Bhana, A. & Haffejee, N. (1996). Relation among measures of burnout, job satisfaction, and role dynamics for a sample of South African child-care social workers. *Psychological Reports, 79*(2), 431-434.

Bishop, S., Lau, M., Shapiro, S., Carlson, L., Anderson, N., Carmody, J., et al. (2004). Mindfulness: A proposed operational definition. *Clinical Psychology: Science and Practice, 11*, 230-241.

Boatright, R.A. & McIntosh, W.D. (2008). The relationship between mindfulness and self-promoting illusions. *Mental Health, Religion & Culture, 11*(6), 561-566.

Boccio, F. (2004). *Mindfulness yoga.* Somerville, MA: Wisdom Publications.

Bond, F.W. & Bruce, D. (2000). Mediators of change in emotion-focused and problem-focused worksite stress management interventions. *Journal of Occupational Health Psychology,* 5, 156-163.

Boswell, C.A. (1992). Work stress and job satisfaction for the community health nurse. *Journal of Community Health Nursing, 9(4)*, 221.

Brantley, J. (2003). *Calming your anxious mind: How mindfulness and compassion can free you from anxiety, fear and panic.* Oakland, CA: New Harbinger Publications, Inc.

Bromet, E.J., Dew, M.A., Parkinson, D.K. & Cohen, S. (1992). Effects of occupational stress on the physical and psychological health of women in a microelectronics plant. *Social Science & Medicine, 34,* 1377–1383.

Brough, P. & Frame, R. (2004). Predicting police job satisfaction and turnover intentions: The role of social support and police organisational variables. *New Zealand Journal of Psychology, 33(1)*, 8-16.

Brown, K.W. & Ryan, R.M. (2003). The benefits of being present: Mindfulness and its role in psychological well-being. *Journal of Personality and Social Psychology, 84*, 822-848.

Brown, K.W. & Ryan, R.M. (2004). Perils and promise in defining and measuring mindfulness: Observations from experience. *Clinical Psychology: Science and Practice, 11(3), 242*-248.

Brown, K.W., Ryan, R.M. & Creswell, J.D. (2007). Mindfulness: Theoretical foundations and evidence for its salutary effects. *Psychological Inquiry, 18*(4), 211-237.

Buchheld, N., Grossman, P. & Walach, H. (2001). Measuring mindfulness in Insight Meditation (Vipassana) and meditation-based psychotherapy: The development of the Freiburg Mindfulness Inventory (FMI). *Journal for Meditation and Meditation Research, 1*(1), 11-34.

Burke, R.J. & Greenglass, E.R. (2001). Hospital restructuring, work-family conflict and psychological burnout among nursing staff. *Psychology and Health, 16*, 583-594.

Cammann, C., Fichman, M., Jenkins, D. & Klesh, J. (1983). Assessing the attitudes and perceptions of organizational members. In S. Seashore, E. Lawler, P. Mirvis & C. Cammann (Eds.), *Assessing organizational change: A guide to methods, measures and practices* (pp. 71-138). New York: John Wiley.

Caplan, R.D., Cobb, S., French, J.R.P., Van Harrison, R. & Pinneau, S.R. (1980). *Job demands and worker health.* Ann Arbor: University of Michigan, Institute for Social Research.

Carlson, L.E. & Brown, K.W. (2005). Validation of the Mindful Attention Awareness Scale in a cancer population. *Journal of Psychosomatic Research, 58*, 29-33.

Carlson, L.E. & Garland, S.N. (2005). Impact of Mindfulness-Based Stress Reduction (MBSR) on sleep, mood, stress and fatigue symptoms in cancer outpatients. *International Journal of Behavioral Medicine, 12*(4), 278-285.

Carmody, J. (2009). Evolving conceptions of mindfulness in clinical settings. *Journal of Cognitive Psychotherapy An International Quarterly, 23*(3), 270-279.

Carmody, J. & Baer, R.A. (2008). Relationships between practice and levels of mindfulness, medical and psychological symptoms and well-being in a mindfulness-based stress reduction program. *Journal of Behavioural Medicine, 31*(1), 23-33.

Carmody, J., Reed, G., Kristeller, J. & Merriam, P. (2008). Mindfulness, spirituality, and health-related symptoms. *Journal of Psychosomatic Research, 64*(4), 393-403.

Chadwick, P., Hember, M., Mead, S., Lilley, B. & Dagnan, D. (2005). *Responding mindfully to unpleasant thoughts and images: Reliability and validity of the Mindfulness Questionnaire.* Unpublished manuscript.

Chadwick, P., Hember, M., Symes, J., Peters, E., Kuipers, E. & Dagnan, D. (2008). Responding mindfully to unpleasant thoughts and images: Reliability and validity of the Southampton Mindfulness Questionnaire. *British Journal of Clinical Psychology, 47*, 451-455.

Chadwick, P., Taylor, K.N. & Abba, N. (2005). Mindfulness groups for people with psychosis. *Behavioural and Cognitive Psychotherapy, 33*, 351-359.

Claessens, M. (2009). Mindfulness and existential therapy. *Existential analysis, 20*(1), 109-119.

Clarke, S.G. & Cooper, C.L. (2000). The risk management of occupational stress. *Health, Risk & Society*, 2(2), 173-187.

Cohen, J.W. (1988). *Statistical power analysis for the behavioural sciences.* (2nd ed.). Hillsdale, NJ: Lawrence Erlbaum Associates.

Coltrane, S. (2000). Research on household labour: Modelling and measuring the social embeddedness of routine family work. *Journal of Marriage and the Family, 62*, 1208-1233.

Cooper, C.L. & Marshall, J. (1976). Occupational sources of stress: A review of the literature relating to coronary heart disease and mental ill-health. *Journal of Occupational Psychology, 49*, 11-28.

Cordes, C.L. & Dougherty, T.W. (1993). A review and an integration of research on job burnout. *Academy of Management Review, 18*(4), 621-656.

Cordes, C.L., Dougherty, T.W. & Blum, M. (1997). Patterns of Burnout among Managers and Professionals: A Comparison of Models. *Journal of Organizational Behavior, 18(6)*, 685-701.

Cordon, S. L. & Finney, S. J. (2008). Measurement invariance of the Mindful Attention Awareness Scale across adult attachment style. *Measurement & Evaluation in Counseling & Development (American Counseling Association), 40*(4), 228-245.

De Frank, R.S. & Cooper, C.L. (1987). Worksite stress management interventions: Their effectiveness and conceptualisation. *Journal of Managerial Psychology, 2*(1), 4-10.

Demerouti, E., Bakker, A.B., Nachreiner, F. & Ebbinghaus, M. (2002). From mental strain to burnout. *European Journal of Work and Organisational Psychology, 11*(4), 423-441.

Demerouti, E., Bakker, A.B., Nachreiner, F. & Schaufeli, W.B. (2000). A model of burnout and life satisfaction amongst nurses. *Journal of Advanced Nursing, 32*(2), 454-464.

Demerouti, E., Bakker, A.B., Nachreiner, F. & Schaufeli, W.B. (2001). The job demands-resources model of burnout. *Journal of Applied Psychology, 86*, 499-512.

Demerouti, E., Bakker, A.B., Vardakou, I. & Kantas, A. (2003). The convergent validity of two burnout instruments: A multitrait-multimethod analysis, *European Journal of Psychological Assessment, 19*(1), 12-23.

Dimidjian, S. & Linehan, M.M. (2003). Defining an agenda for future research on the clinical application of mindfulness practice. *Clinical Psychology: Science and Practice, 10*, 166-171.

Dubrin, A.J. (1990). *Effective business psychology* (3rd ed.). Englewood Cliffs, NJ: Prentice-Hall.

Dumas, J.E. (2005). Mindfulness-based parent training: Strategies to lessen the grip of automaticity in families with disruptive children. *Journal of Clinical Child and Adolescent Psychology, 3*, 779-791.

Einsiedel, A. & Tully, H. (1982). Methodological considerations in studying the burnout phenomenon. In J.W. Jones (Ed.), *The burnout syndrome* (pp. 89-106). Park Ridge, IL: London House.

Feldman, G., Hayes, A., Kumar, S., Greeson, J. & Laurenceau, J.P. (2007). Mindfulness and emotional regulation: The development and initial validation of the Cognitive and Affective Mindfulness Scale-Revised (CAMS-R). *Journal of Psychopathology and Behavioural Assessment, 29*, 177-190.

Fields, D.L. (2002). *Taking the measure of work: A guide to validated scales for organizational research and diagnosis.* London: Sage Publications Ltd.

Fischer, J., Kumar, S. & Hatcher, S. (2007). What makes psychiatry such a stressful profession? A qualitative study. *Australasian Psychiatry, 15*(5), 417-421.

Fisher, C.D. (1985). Social support and adjustment to work: A longitudinal study. *Journal of Management, 11,* 39–53.

Freedy, J.R. & Hobfoll, S.E. (1994). Stress inoculation for reduction of burnout: A conservation of resources approach. *Anxiety, Stress & Coping, 6,* 311-325.

Freke, T. (2000). *Rumi wisdom: Daily teachings from the great Sufi master.* New Alresford, Hants, UK : Godsfield Press.

Freudenberger, H.J. (1974). Staff burn-out. *Journal of Social Issues, 30,* 159-165.

Ganster, D.C. & Schaubroeck, J. (1991). Work, stress and employee health. *Journal of Management, 17,* 235-271.

Germer, C.K., Siegel, R.D. & Fulton, P.R. (2005). *Mindfulness and psychotherapy.* New York: The Guilford Press.

Ghorbani, N., Watson, P. & Weathington, B. (2009). Mindfulness in Iran and the United States: Cross-cultural structural complexity and parallel relationships with psychological adjustment. *Current Psychology, 28*(4), 211-224.

Gifford, E. (2002). *Acceptance and Commitment Therapy versus Nicotine Replacement Therapy as methods of smoking cessation.* Unpublished Doctoral dissertation. Reno NV: University of Nevada.

Glowinkowski, S.P. & Cooper, C.L. (1986). Managers and professionals in business/industrial settings: The research evidence. In J.M. Ivancevich & D.C. Ganster (Eds.), *Job stress: From theory to suggestion* (pp. 177-193). New York: Hawthorne Press.

Gold, E., Smith, A., Hopper, I., Herne, D., Tansey, G. & Hulland, C. (2010). Mindfulness-Based Stress Reduction (MBSR) for primary school teachers. *Journal of Child & Family Studies, 19(2)*, 184-189.

Goleman, D. (1977). *The varieties of the meditative experience.* New York: John Wiley & Sons.

Goleman, D.J. & Schwartz, G.E. (1976). Meditation as an intervention in stress reactivity. *Journal of Consulting and Clinical Psychology, 44*, 456-466.

Golembiewski, R.T. (1986). The epidemiology of progressive burnout: A primer. *Journal of Health and Human Resource Administration, 9,* 16-37.

Golembiewski, R.T. & Kim, B.S. (1989). Self-esteem and phases of burnout. *Organisational Development Journal, 7(1)*, 51-58.

Golembiewski, R.T., Munzenrider, R.F. & Stevenson, J.G. (1986). Phases of burnout: Developments in concepts and applications. New York: Praeger.

Goodwin, C.J. (1995). *Research in psychology: Methods and design.* New York: John Wiley & Sons, Inc.

Gravetter, F.J. & Forzano, L.B. (2006). *Research methods for the behavioral sciences.* (2nd ed.). London: Thomson Wadsworth.

Greeson, J.M. (2009). Mindfulness research update: 2008. *Complementary Health Practice Review, 14*(1), 10-18.

Griffin, M.L., Hogan, N.L., Lambert, E.G., Tucker-Gail, K.A. & Baker, D.N. (2010). Job involvement, job stress, job satisfaction, and organizational commitment and the burnout of correctional staff. *Criminal Justice and Behavior, 37(2)*, 239-255.

Grosch, W.N. & Olsen, D.C. (1994). *When helping starts to hurt: A new look at burnout among psychotherapists.* New York: W.W. Norton & Company, Inc.

Grossman, P., Niemann, L., Schmidt, S. & Walach, H. (2004). Mindfulness-based stress reduction and health benefits: A meta-analysis. *Journal of Psychosomatic Research, 57*, 35–43.

Gustafsson, G., Eriksson, S., Strandberg, G. & Norberg, A. (2010). Burnout and perceptions of conscience among health care personnel: A pilot study. *Nursing Ethics, 17(1)*, 23-38.

Haines, V.A., Hurlbert, J.S. & Zimmer, C. (1991). Occupational stress, social support, and the buffer hypothesis. *Work and Occupations, 18*, 212-235.

Hakanen, J.J., Schaufeli, W.B. & Ahola, K. (2008). The Job Demands-Resources model: A three-year cross-lagged study of burnout, depression, commitment, and work engagement. *Work & Stress, 22*(3), 224-241.

Halbesleben, J.R.B. & Buckley, R.M. (2004). Burnout in organizational life. *Journal of Management, 30 (6)* 859-879.

Halbesleben, J.R.B. & Demerouti, E. (2005). The construct validity of an alternative measure of burnout: Investigating the English translation of the Oldenburg Burnout Inventory. *Work & Stress, 19 (3),* 208-220.

Hamilton, N.A., Kitzman, H. & Guyotte, S. (2006). Enhancing health and emotion: Mindfulness as a missing link between cognitive therapy and positive psychology. *Journal of Cognitive Psychotherapy: An International Quarterly, 20*(2), 123-134.

Hammen, C., Kim, E.Y., Eberhart, N.K. & Brennan, P.A. (2009). Chronic and acute stress and the prediction of major depression in women. *Depression & Anxiety, 26*(8), 718-723.

Hanh, T.N. (1976). *The miracle of mindfulness.* Boston: Beacon Press.

Hansen, E., Lundh, L., Homman, A. & Wångby-Lundh, M. (2009). Measuring mindfulness: Pilot studies with the Swedish versions of the Mindful Attention Awareness Scale and the Kentucky Inventory of Mindfulness Skills. *Cognitive Behaviour Therapy, 38*(1), 2-15.

Harris, W.C., Hancock, P.A. & Harris. S.C. (2005). Information processing changes following extended stress. *Military Psychology, 17,* 115-128.

Hayes, S.C., Bissett, R., Roget, N., Padilla, M., Kohlenberg, B.S., Fisher, G., et al. (2004). The impact of Acceptance and Commitment training and multicultural training on the stigmatising attitudes and professional burnout of substance abuse counsellors. *Behaviour Therapy, 35,* 821-835.

Hayes, S.C. & Plumb, J.C. (2007). Mindfulness from the bottom up: Providing an inductive framework for understanding mindfulness processes and their application to human suffering. *Psychological Inquiry, 18*(4), 242-248.

Hayes, S.C., Strosahl, K.D. & Wilson, K.G. (1999). *Acceptance and commitment therapy: An experiential approach to behaviour change.* New York: Guilford Press.

Hayes, C.T. & Weathington, B.L. (2007). Optimism, Stress, Life Satisfaction, and Job Burnout in Restaurant Managers. *The Journal of Psychology, 141*(6), 565–579.

Helminski, K.E. (1992). *Living presence: A Sufi way to mindfulness and the essential self.* New York: Tarcher/Putnam.

Heyns, P.M., Venter, J.H., Esterhuyse, K.G., Bam, R.H. & Odendaal, D.C. (2003). Nurses caring for patients with Alzheimer's disease: Their strengths and risk of burnout. *South African Journal of Psychology, 33*(2), 80-85.

Hogan, R.L. & McKnight, M.A. (2007). Exploring burnout among university online instructors: An initial investigation. *Internet and Higher Education, 10,* 117-124.

Hudson. (2005). Burnout Britain? Raising the alarm for employees. Retrieved February 28, 2010, from http://uk.hudson.com/documents/uk-burnout-britian-exec-summary.pdf.

Ivey, A.E. & Ivey, M.B. (2003). Intentional interviewing and counseling: Facilitating client development in a multicultural society. (5th ed.). Pacific Grove, CA, USA: Thompson Learning.

Jansen, P., Kerkstra, A., Abu-Saad, H. & Van Der Zee, J. (1996). The effects of job characteristics and individual characteristics on job satisfaction and burnout in community nursing. *International Journal of Nursing Studies 33(4),* 407–421.

Janssen, P.P.M., Schaufeli, W.B. & Houkes, I. (1999). Work-related and individual determinants of the three burnout dimensions. *Work & Stress, 13*(1), 74-86.

Jermann, F., Billieux, J., Larøi, F., d'Argembeau, A., Bondolfi, G., Zermatten, A. & Van der Linden, M. (2009). Mindful Attention Awareness Scale (MAAS): Psychometric properties of the French translation and exploration of its relations with Emotion regulation strategies. *Psychological Assessment, 21*(4), 506-514.

Johnson, C.J. (2007). The measurement of mindfulness. *Dissertation Abstracts International: Section B: The Sciences and Engineering, 67*(11-B), 6769.

Kabat-Zinn, J. (1982). An outpatient program in behavioural medicine for chronic pain patients based on the practice of mindfulness meditation: Theoretical considerations and preliminary results. *General Hospital Psychiatry, 4*, 33-47.

Kabat-Zinn, J. (1994). *Wherever you go, there you are.* New York: Hyperion.

Kabat-Zinn, J. (2003). Mindfulness-based interventions in context: Past, present, and future. *Clin Psychol Sci Prac, 10*, 144-156.

Kabat-Zinn, J. (2008). *Full catastrophe living: How to cope with stress, pain and illness using mindfulness meditation.* (15th ed.). London: Piatkus.

Kabat-Zinn, J., Wheeler, E., Light, T., Skillings, A., Scharf, M.J., Cropley, T.G., et al. (1998). Influence of a mindfulness meditation-based stress reduction intervention on rates of skin clearing in patients with moderate to severe psoriasis undergoing phototherapy (UVB) and photochemotherapy (PUVA). *Psychosomatic Medicine, 60*, 625-632.

Kahill, S. (1988). Symptoms of professional burnout: A review of the empirical evidence. *Canadian Psychology, 29*, 284-29.

Kamilar, S. (2002). A Buddhist psychology. In R.P.Olson (Ed.), *Religious theories of personality and psychotherapy: East meets West* (pp. 85-139). New York: The Haworth Press.

Kaplan, K., Goldenberg, D., Galvin-Nadeau, M. (1993). The impact of a meditation based stress reduction program on fibromyalgia. *General Hospital Psychiatry*, *15*, 284-289.

Karger, H.J. (1981). Burnout as alienation. *Social Services Review*, *55*, 270-283.

Kingston, T., Dooley, B., Bates, A., Lawlor, E. & Malone, K. (2007). Mindfulness-based cognitive therapy for residual depressive symptoms. *Psychology and Psychotherapy: Theory, Research and Practice*, *80*, 193-203.

Korunka, C., Kubicek, B., Schaufeli, W.B. & Hoonakker, P. (2009). Work engagement and burnout: testing the robustness of the Job Demands-Resources model. *The Journal of Positive Psychology, 4(3)*, 243-255.

Kostanski, M. & Hassed. C. (2008). Mindfulness as a concept and a process. *Australian Psychologist*, *43*(1), 15-21.

Krasner, M. (2004). Mindfulness-based interventions: A coming of age? *Families, Systems, & Health*, *22*(2), 207-212.

Langer, E.J. (1989). *Mindfulness.* Reading, MA: Addison-Wesley.

Langer, E.J. (2000). Mindful Learning. *Current Directions in Psychological Science*, *9*(6), 220-223.

Langer, E.J. & Moldoveanu, M. (2000). The construct of mindfulness. *Journal of Social Issues, 56*(1), 1-9.

Langer, E.J. & Piper, A. (1987). The prevention of mindlessness. *Journal of Personality and Social Psychology, 53*, 280-287.

Lau, M.A., Bishop, S.R., Segal, Z.V., Buis, T., Anderson, N.D., Carlson, L., et al. (2006). The Toronto Mindfulness Scale: Development and validation. *Journal of Clinical Psychology, 62*(12), 1445-1467.

Lau, M.A. & Yu, A.R. (2009). New developments in research of mindfulness-based treatments: Introduction to the special issue. *Journal of Cognitive Psychotherapy: An International Quarterly, 23*(3), 179-184.

Lazarus, R.S. & Folkman, S. (1984). *Stress, appraisal, and coping.* New York: Springer.

Leading productivity killers in today's market: overwork, stress. (2008, April). *HR Focus*, p 8.

Leary, M.R. & Tate, E.B. (2007). The multi-faceted nature of mindfulness. *Psychological Inquiry, 18*(4), 251-255.

Lee, R.T. & Ashforth, B.E. (1993). A further examination of managerial burnout: Toward an integrated model. Journal of Organizational Behaviour, 14, 3-20.

Leiter, M.P. (1988). Burnout as a function of communication patterns: A study of a multidisciplinary mental health team. *Group & Organization Studies, 13(1)*, 111.

Leiter, M.P. (1991). Coping patterns as predictors of burnout: The function of control and escapist coping patterns. *Journal of Organizational Behaviour*, 12, 123-144.

Leiter, M.P. & Maslach, C. (2005). *Banishing burnout: Six strategies for improving your relationship with work.* San Francisco: Jossey-Bass.

Leiter, M.P. & Schaufeli, W.B. (1996). Consistency of the burnout construct across occupations. *Anxiety, Stress, and Coping, 9*, 229-243.

Lenthall, S., Wakerman, J., Opie, T., Dollard, M., Dunn, S., Knight, S., et al. (2009). What stresses remote area nurses? Current knowledge and future action. *Australian Journal of Rural Health, 17*, 208-213.

Levert, T., Lucas, M. & Ortlepp, K. (2000). Burnout in psychiatric nurses: Contributions of the work environment and a sense of coherence. *South African Journal of Psychology, 30*, 36-43.

Li, N. & Wang, X. (2009). The job demands-resources model of coal miners job burnout. *Chinese Mental Health Journal, 23(7)*, 515-520.

Lim, V.K.G. (1996). Job insecurity and its outcomes: Moderating effects of work-based and non-work-based social support. *Human Relations, 49*(2), 171.

Linehan, M.M. (1993a). *Cognitive-behavioural treatment of borderline personality disorder.* New York: The Guilford Press.

Linehan, M.M. (1993b). *Skills training manual for treating borderline personality disorder.* New York: The Guilford Press.

Linehan, M.M., Armstrong, H.E., Suarez, A., Allmon, D. & Heard, H.L. (1991). A cognitive-behavioural treatment of chronically parasuicidal borderline patients. *Archives of General Psychiatry, 48*, 1060-1064.

Linehan, M.M., Schmidt, H.I., Dimeff, L.A., Craft, J.C., Katner, J. & Comtois, K.A. (1999). Dialectical behaviour therapy for patients with borderline personality disorder and drug-dependence. *American Journal of Addition, 8,* 279-292.

Lykins, E.L.B. & Baer, R.A. (2009). Psychological functioning in a sample of long-term practitioners of mindfulness meditation. *Journal of Cognitive Psychotherapy: An International Quarterly, 23*(3), 226-241.

Ma, S.H. & Teasdale, J.D. (2004). Mindfulness-based cognitive therapy for depression: replication and exploration of differential relapse prevention effects. *Journal of Consulting and Clinical Psychology, 72,* 31-40.

Maher, E.L. (1983). Burnout and commitment. A theoretical alternative. *Personnel and Guidance Journal, 61,* 390-393.

Majumdar, M., Grossman, P., Dietz-Waschkowski, B., Kersig, S. & Walach, H. Does mindfulness meditation contribute to health? Outcome evaluation of a German sample. (2002). *Journal of Alternative & Complementary Medicine,* 8(6), 719-730.

Marlatt, G.A. & Gordon, J.R. (1985). *Relapse prevention: Maintenance strategies in the treatment of addictive behaviours.* New York: Guilford.

Martin, J. (1997). Mindfulness: A proposed common factor. *Journal of Psychotherapy Integration, 7*(4), 291-312.

Maslach, C. (1976). Burned-out. *Human Behaviour, 5,* 16-22.

Maslach, C. (1982). *Burnout: The cost of caring.* New Jersey: Prentice-Hall, Inc.

Maslach, C. & Goldberg, J. (1998). Prevention of burnout: A new perspective. *Applied Preventative Psychology, 7,* 63-74.

Maslach, C. & Jackson, S.E. (1981). The measurement of experienced burnout. *Journal of Occupational Behaviour, 2,* 99-113.

Maslach, C., Jackson, S.E. & Leiter, M.P. (1996). *Maslach Burnout Inventory Manual.* (3rd ed.). Pallo Alto, CA: Consulting Psychologists Press.

Maslach, C. & Leiter, M.P. (1997). *The truth about burnout.* San Francisco: Jossey-Bass.

Maslach, C. & Schaufeli, W.B. (1993). Historical and conceptual development of burnout. In W.B. Schaufeli, C. Maslach & T. Marek (Eds.), *Professional burnout: Recent developments in theory and research (pp. 1-16).* Washington, DC: Taylor & Francis.

Maslach, C., Schaufeli, W.B. & Leiter, M.P. (2001). Job burnout. *Annual Review of Psychology, 52,* 397-442.

McCracken, L.M., Gauntlett-Gilbert, J. & Vowles, K.E. (2007). The role of mindfulness in a contextual cognitive-behavioral analysis of chronic pain-related suffering and disability. *Pain, 131*(1/2), 63-69.

McCracken, L.M. & Thompson, M. (2009). Components of mindfulness in patients with chronic pain. *Journal of Psychopathology & Behavioral Assessment, 31*(2), 75-82.

Meeusen, V., Van Dam, K., Brown-Mahoney, C., Van Zundert, A. & Knape, H. (2010). Burnout, psychosomatic symptoms and job satisfaction among Dutch nurse anaesthetists: A survey. *Anaesthesiologica Scandinavica, 54*(5), 616-621.

Miles, J. & Shevlin, M. (2001). *Applying regression and correlation: A guide for students and researchers.* London: SAGE Publications Ltd.

Miller, R. & Bor, R. (1988). *AIDS: A guide to clinical counselling.* London: Science Press Ltd.

Mitani, S., Fujita, M., Nakata, K. & Shirakawa, T. (2006). Impact of post-traumatic stress disorder and job-related stress on burnout: A study of fire service workers. *Journal of Emergency Medicine, 31(1),* 7-11.

Morris, J.E. & Long, B.C. (2002). Female clerical workers' occupational stress: The role of person and social resources, negative affectivity, and stress appraisals. *Journal of Counseling Psychology, 49,* 395–410.

National Institute for Clinical Excellence. (2004). *Depression: Management of depression in primary and secondary care.* Clinical Guideline 23. London: NICE.

National Institute for Occupational Safety and Health (NIOSH). (2002). *The changing organization of work and the safety and health of working people: Knowledge gaps and research directions* (DHHS Publication No. 2002-116). Washington, DC: U.S. Government Printing.

Naugle, K.E. (2010). Perceptions of wellness and burnout among certified athletic trainers: Contributions of the wellness domains. *Dissertation Abstracts International Section A: Humanities and Social Sciences, 70(7-A),* 2404.

Neuman, W.L. (1997). *Social research methods: Qualitative and quantitative approaches.* (3rd ed.). Boston, Mass: Allyn & Bacon.

Nolen-Hoeksema, S. (1991). Responses to depression and their effects on the duration of depressive episodes. *Journal of Abnormal Psychology, 100,* 569-582.

O'Loughlin, R.E. & Zuckerman, M. (2008). Mindfulness as a moderator of the relationship between dehydroepiandrosterone and reported physical symptoms. *Personality and Individual Differences, 44*(5), 1193-1202.

Olson, R.P. (Ed.). (2002). *Religious theories of personality and psychotherapy: East meets West.* New York: The Haworth Press.

O'Reilly, S. (2008, June 22). Making work better. *Occupational Health*, p. 22.

Paine, W.S. (1982). The burnout syndrome in context. In J.W. Jones (Ed.), *The burnout syndrome* (pp. 1-29). Park Ridge, IL: London House.

Pallant, J. (2007). *SPSS survival manual: A step by step guide to data analysis using SPSS version 15.* London: McGraw-Hill.

Parent-Thirion, A., Macías, E.F, Hurley.J. & Vermeylen, G. (2005). *Fourth European Working Conditions Survey.* Retrieved June 09, 2009 from http://www.eurofound.europa.eu/pubdocs/2006/98/en/2/ef0698en.pdf

Peltzer, K., Mashego, T. & Mabeba, M. (2003). Short communication: Occupational stress and burnout among South African medical practitioners. *Stress and Health: Journal of the International Society for the Investigation of Stress, 19*(5), 275-280.

Perron, B.E. & Hiltz, B.S. (2006). Burnout and secondary trauma among forensic interviewers of abused children. *Child and Adolescent Social Work Journal, 23*(2), 216-234.

Pienaar, J. & Willemse, S.A. (2008). Burnout, engagement, coping and general health of service employees in the hospitality industry. *Tourism Management, 29*(6), 1053-1063.

Pines, A.M. (1993). Burnout: An existential perspective. In W.B Schaufeli, C. Maslach & T. Marek (Eds), *Professional burnout: Recent developments in theory and research (pp. 33-51).* Washington, DC: Taylor & Francis.

Platsidou, M. & Ioannis, A. *(2008).* Burnout, job satisfaction and instructional assignment-related sources of stress in Greek special education teachers. *International Journal of Disability, Development & Education, 55(1)*, 61-76.

Pretorius, T.B. (1994). Using the Maslach Burnout Inventory to assess educator's burnout at a university in South Africa. *Psychological Reports, 75*(2), 771-777.

Quinn, J. (2008, March 11). Stress management – why bother? *Personnel Today*, p. 11.

Reibel, D.K., Greeson, J.M., Brainard,G.C. & Rosenzweig, S. (2001). Mindfulness-based stress reduction and health-related quality of life in a heterogeneous patient population. *General Hospital Psychiatry, 23*, 183-192.

Reissner, V., Baune, B., Kokkevi, A, Schifano, F., Room, R., Palm, J., et al. (2010). Burnout, coping and job satisfaction in service staff treating opioid addicts-from Athens to Zurich. *Stress & Health: Journal of the International Society for the Investigation of Stress, 26*(2), 149-159.

Repeti, R.L. & Cosmas, K.A. (1991). The quality of the social environment at work and job satisfaction. *Journal of Applied Social Psychology, 21*(10), 840-854.

Richings, J.C., Khara, G.S. & McDowell, M. (1986). Suicide in young doctors. *British Journal of Psychiatry, 149*, 475-478.

Robinson, F.P., Mathews, H.L. & Witek-Janusek, L. (2003). Psycho-endocrine-immune response to mindfulness-based stress reduction in individuals infected with Human Immunodeficiency Virus: A quasi-experimental study. *The Journal of Alternative and Complementary Medicine, 9*, 683-694.

Roemer, L. & Orsillo, S.M. (2002). Expanding our conceptualisation of and treatment for generalised anxiety disorder: Integrating mindfulness/acceptance-based approaches with existing cognitive-behavioural models. *Clinical Psychology: Science and Practice*, *9*, 54-68.

Roemer, L. & Orsillo, S.M. (2003). Mindfulness: A promising intervention strategy in need of further study. *Clinical Psychology: Science and Practice*, *10*, 172-178.

Rogers, C.R. (1961). *On becoming a person. A therapist's view of psychology.* London: Constable.

Rosse, J.G., Boss, R.W., Johnson, A.E. & Crown, D.F. (1991). Conceptualising the role of self-esteem in the burnout process. *Group & Organization Studies, 16*(4), 428-451.

Roth, B. & Creaser, T. (1997). Mindfulness meditation-based stress reduction: Experience with a bilingual inner-city program. *Nurse Practitioner*, *22*, 150-176.

Rothmann, S. (2003). Burnout and engagement: A South African perspective. *SA Journal of Industrial Psychology*, *29*(4), 16-25.

Rothmann, S. & Essenko, N. (2007). Job characteristics, optimism, burnout, and ill health of support staff in a higher education institution in South Africa. *South African Journal of Psychology, 37*(1), 135-152.

Rushton, A. (1987). Stress among social workers. In R. Payne & J. Firth-Cozens (Eds), *Stress in health professionals* (pp. 167-188). Chichester: John Wiley & Sons.

Ryan, C.C. (1990). The training and support of health care professionals dealing with the psychiatric aspects of AIDS. In D.G. Ostrow (Ed.), *Behavioural aspects of AIDS.* New York: Plenum Publishing Corp.

Ryan, R.M. & Deci, E.L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist, 55*, 68-78.

Sadock, B.J. & Sadock, V.A. (2003). *Synopsis of psychiatry: Behavioural sciences/clinical sciences* (9th ed.). Philadelphia, USA: Lippincott Williams & Wilkins.

Salmon, P.G., Santorelli, S.F. & Kabat-Zinn, J. (1998). Intervention elements promoting adherence to mindfulness-based stress reduction programs in the clinical behavioural medicine setting. In S.A. Schumaker, E.B. Schron, J.K. Ockene & W. L. Bee (Eds.), *Handbook of Health Behaviour Change* (2nd ed., pp. 239-268). New York: Springer.

Sardiwalla, N., VandenBerg, H. & Esterhuyse, K.G.F. (2007). The role of stressors and coping strategies in the burnout experienced by hospice workers. *Cancer Nursing, 30*(6), 488-497.

Sauter, S.L., Hurrell, J.J., Jr. & Cooper, C.L. (1989). *Job control and worker health.* New York: Wiley.

Schaufeli, W.B. & Bakker, A.B. (2004). Job demands, job resources, and their relationship with burnout and engagement. *Journal of Organizational Behavior, 25*, 293-315.

Schaufeli, W.B. & Buunk, B.P. (2003). Burnout: An overview of 25 years of research and theorizing. In M. Schabracq, J. Winnubst & C.L. Cooper (Eds.), *The handbook of work and health psychology* (2nd ed., pp. 383-425). Chichester: Wiley & Sons.

Schaufeli, W. & Enzmann, D. (1998). *The burnout companion to study and practice: a critical analysis.* London: Taylor & Francis Ltd.

Schaufeli, W.B., Enzmann, D. & Girault, N. (1993). Measurement of burnout: A review. In W.B. Schaufeli, C. Maslach & T. Marek (Eds.), *Professional burnout: Recent developments in theory and research* (pp. 199-215). Washington, DC: Taylor & Francis.

Schaufeli, W.B., Maslach, C. & Marek. T. (1993). The future of burnout. In W.B. Schaufeli, C. Maslach & T. Marek (Eds), *Professional burnout: Recent developments in theory and research* (pp. 253-259). Washington, DC: Taylor & Francis.

Schaufeli, W.B. & Van Dierendonck, D. (1993). The construct validity of two burnout measures. *Journal of Organizational Behaviour*, *14*(7), 631.

Scherer-Dickson, N. (2004). Current developments of metacognitive concepts and their clinical implications: mindfulness-based cognitive therapy for depression. *Counselling Psychology Quarterly*, *17*(2), 223-234.

Schreiner, I. & Malcolm, J.P. (2008). The benefits of mindfulness meditation: Changes in emotional states of depression, anxiety, and stress. *Behaviour Change*, *25*(3), 156-168.

Schroevers, M., Nykliček, I. & Topman, R. (2008). Validatie van de nederlandstalige versie van de Mindful Attention Awareness Scale (MAAS). = Validation of the Dutch version of the Mindful Attention Awareness Scale (MAAS). *Gedragstherapie*, *41*(3), 225-240.

Schütze, R., Rees, C., Preece, M. & Schütze, M. (2010). Low mindfulness predicts pain catastrophising in a fear-avoidance model of chronic pain. *Pain*, *148*(1), 120-127.

Schwartz, J.M. (1996). *Brain Lock*. New York: HarperCollins.

Segal, Z.V., Williams, J.M.G. & Teasdale, J.D. (2002). *Mindfulness-Based Cognitive Therapy for depression: A new approach to preventing relapse.* New York: The Guilford Press.

Shapiro, S.L., Astin, J.A., Bishop, S.R. & Cordova, M. (2005). Mindfulness-based stress reduction for health care professionals: Results from a randomized trial. *International Journal of Stress Management, 12(2)*, 164-176.

Shapiro, S.L., Brown, K.W. & Biegel, G. (2007). Teaching self-care to caregivers: The effects of Mindfulness-Based Stress Reduction on the mental health of therapists in training. *Training and Education in Professional Psychology*, *1*, 105-115.

Shapiro, S.L., Carlson, L.E., Astin, J.A. & Freedman, B. (2006). Mechanisms of mindfulness. *Journal of Clinical Psychology*, *63*(3), 373-386.

Shapiro, S.L., Oman, D., Thoresen, C.E., Plante, T.G. & Flinders, T. (2008). Cultivating mindfulness: Effects on well-being. *Journal of Clinical Psychology*, *64*, 840-862.

Shapiro, S.L., Schwartz, G.E. & Bonner, G. (1998). Effects of mindfulness-based stress reduction on medical and premedical students. *Journal of Behavioural Medicine*, *21*, 581-599.

Sharma, M.P., Kumaraiah, V., Mishra, H. & Balodhi, J.P. (1990). Therapeutic effects of Vipassana Meditation in tension headache. *Journal of Personality ad Clinical Studies*, *6*(2), 201-206.

Shirom, A. (1989). Burnout in work organizations. In C.L. Cooper, C & I. Robertson (Eds), *International Review of Industrial and Organizational Psychology* (pp. 25-48). New York: Wiley.

Siegall, M. & McDonald, T. (1995). Focus of attention and employee reactions to job change. *Journal of Applied Social Psychology, 25*(13), 1121-1141.

Speca, M., Carlson, L.E., Goodey, E. & Angen, M. (2000). A randomised, wait-list controlled clinical trial: The effect of a mindfulness meditation-based stress reduction program on mood and symptoms of stress in cancer patients. *Psychosomatic Medicine, 62*, 613-622.

Stangor, C. (1998). *Research methods for the behavioural sciences.* New York: Houghton Mifflin Company.

Sternberg, R.J. (2000). Images of mindfulness. *Journal of Social Issues, 56*(1), 11-26.

Storm, K. & Rothmann, S. (2003). A psychometric analysis of the Maslach Burnout Inventory-General Survey in the South African police service. *South African Journal of Psychology, 33*(4), 219-226.

Strümpfer, D.J.W. & Bands, J. (1996). Stress among clergy: An exploratory study on South African Anglian priests. *South African Journal of Psychology, 26*(2), 67-75.

Tacón, A.M. & McComb, J. (2009). Mindfulness exercise, quality of life, and survival: A mindfulness-based exercise program for women with breast cancer. *The Journal of Alternative and Complementary Medicine, 15*(1), 41-46.

Teasdale, J.D., Segal, Z.V., Williams, J.M.G., Ridgeway, V.A., Soulsby, J.M. & Lau, M.A. (2000). Prevention of relapse/recurrence in major depression by mindfulness-based cognitive therapy. *Journal of Consulting and Clinical Psychology, 68*, 615-625.

Telch, C., Agras, W.S. & Linehan, M.M. (2001). Dialectical behaviour therapy for binge eating disorder. *Journal of Consulting and Clinical Psychology, 69*, 1061-1065.

Toppinen-Tanner, S., Ojajärvi, A., Väänänen, A., Kalimo, R. & Jäppinen, P. (2005). Burnout as a predictor of medically certified sick-leave absence and their diagnosed causes. *Behavioural Medicine, 31*, 18-27.

Tsai, F. & Chan, C. (2010). Occupational stress and burnout of judges and procurators. *International Archives of Occupational & Environmental Health, 83(2)*, 133-142.

Van den Broeck, A., Vansteenkiste, M., De Witte, H. & Lens, W. (2008). Explaining the relationships between job characteristics, burnout, and engagement: The role of basic psychological need satisfaction. *Work & Stress, 22*(3), 277-294.

Van Tonder, C.L. & Williams, C. (2009). Exploring the origins of burnout among secondary educators. *South African Journal of Industrial Psychology, 35*(1), 204-218.

Williams, M., Teasdale, W., Segal, Z. & Kabat-Zinn, J. (2007). *The mindful way through depression: Freeing yourself from chronic unhappiness.* New York: The Guilford Press.

APPENDIX A

Consent Form

PARTICIPANT'S CONSENT FORM

I, _____, I.D. number: _____ do hereby give consent to Voluntarily participate in the research conducted by Husain Ismail for his master's degree though the University of Johannesburg. I confirm that no personal or identifying information about myself is to be disclosed to my employer without my knowledge and/or without my written consent.

_____ _____

SIGNATURE DATE

APPENDIX B
Researcher's invitation to participants

Dear Participant

I am currently engaged in master's research and am investigating the relationship between burnout and mindfulness. This research is being done as part of the course requirements for the degree MA (Psychology), for which I am registered at the University of Johannesburg (UJ). My research supervisor is Dr Nicoleen Coetzee.

The purpose of the questionnaire is to investigate the relationship between burnout and mindfulness. In order to generate data I have developed a questionnaire containing items on burnout and mindfulness and coping mechanisms in the workplace. It is hoped that the results of the research will be used by employers in having an enhanced understanding of burnout and will lead to more appropriate solution-focused outcomes. The results of the research will be used to add to the body of understanding of the prevalence of burnout and mindfulness with the view to addressing burnout as a psychological syndrome.

To this end I would greatly appreciate your participation in completing a questionnaire that will take approximately 10 minutes to complete. Cheryl De Beer has graciously offered to arrange a room where about twenty volunteer participants will meet. You will be handed a questionnaire, which mainly constitutes multiple choices questions and a few questions about yourselves. A consent form will also be required to be completed and signed. On completion you may leave and for those with any questions I will be available for about 10 minutes to field them. However, for those who wish to communicate their concerns privately my email address is detailed below.

All information is strictly confidential. Your input is invaluable and as there is no right or wrong answer your honest answer will be appreciated. Please note that a report with overall results of the study will be produced and made available to the bank and to those individuals who wish to view them. This is an external study and independent of the bank. No individual results will be produced and no identifying information of participants will be disclosed under any circumstances.

An important note is that all individuals invited to participate in this study have been randomly selected using rigorous scientific criteria. No individual(s) or group(s) or department(s) has been targeted. This study is targeting the organisation as a whole so that a global view of the organisation can be obtained.

I thank you in advance for your participation in this study.

Yours truly,
Husain Ismail
Clinical Psychology Masters candidate (University of Johannesburg)
Email: analysis@polka.co.za

APPENDIX C

Biographical Questionnaire

Dear Participant,

The purpose of the questionnaire is to investigate the relationship between burnout and mindfulness. All information that you provide is strictly confidential. Please read the instructions provided and answer all questions as honestly and clearly as possible as your opinion is important to us. Should you have any queries please contact me via my email: analysis@polka.co.za. Thank you for your participation.

DEMOGRAPHIC INFORMATION

Subject # _____ **Date:** _____

Please fill out the following information:

1. Age (please insert an X where appropriate):

☐ 18-25 ☐ 26-30 ☐ 31-35 ☐ 36-40 ☐ 41-45
☐ 46-50 ☐ 51-55 ☐ 56-60

2. Race:

☐ African ☐ Asian ☐ Coloured
☐ Indian ☐ White
Other (please specify) _____

3. Religion: _____

4. Gender:

☐ Male ☐ Female

5. Current marital status:

☐ Married ☐ Single ☐ Separated
☐ Divorced ☐ Widowed
☐ Living with someone

6. How many children do you have under your direct care? _____

7. Highest educational / academic qualification (please specify):

Some secondary school (Standard) _____
Certificate_____
Diploma_____
Degree_____
Postgraduate_____

8. Years in employment with current employer?

⌐ 0-1 ⌐ 2-5 ⌐ 6-10 ⌐ 11-15 ⌐ 16-20 ⌐ 21+

9. Years in current position?

⌐ 0-1 ⌐ 2-5 ⌐ 6-10 ⌐ 11-15 ⌐ 16-20 ⌐ 21+

10. Current job level?

⌐ Clerk ⌐ Supervisor ⌐ Junior manager
⌐ Middle manager ⌐ Senior Manager ⌐ Director

11. How would you describe your economic status?

⌐ Poor ⌐ Lower Middle Class ⌐ Middle Class
⌐ Upper Middle Class ⌐ Affluent

12. Using the scale indicated please answer the three questions below:

1	2	3	4	5	6	7
Strongly Disagree	Disagree	Slightly Disagree	Neither agree nor disagree	Slightly Agree	Agree	Strongly Agree

1. All in all, I am satisfied with my job _____
2. In general, I don't like my job _____
3. In general, I like working here _____

13. Using the scale indicated please answer the questions below:

0	1	2	3	4
Don't have any such person	Not at All	A Little	Somewhat	Very Much

1. How much does each of these people go out of their way to do things to make your work life easier for you?
   A. Your immediate supervisor _____
   B. Other people at work _____
   C. Your wife (husband), friends and relatives _____

2. How easy is it to talk with each of the following people?
   A. Your immediate supervisor _____
   B. Other people at work _____
   C. Your wife (husband), friends and relatives _____

3. How much can each of these people be relied on when things get tough at work?
   A. Your immediate supervisor (boss) _____
   B. Other people at work _____
   C. Your wife (husband), friends and relatives _____

4. How much is each of the following people willing to listen to your personal problems?
   A. Your immediate supervisor _____
   B. Other people at work _____
   C. Your wife (husband), friends and relatives _____

14. Have you suffered from the following in the past five years?

☐ ADHD ☐ Depression ☐ Anxiety Disorder(s)

☐ Any Mood Disorder(s), please specify_____

☐ Not applicable

15. Are you receiving any of the following?

☐ Therapy ☐ Counselling ☐ Professional help

☐ Not applicable

16. Have you ever had formal or informal meditation training?
[e.g. meditation classes (religious, spiritual or otherwise), yoga, self-help tapes or books]

⌜ Yes ⌜ No

If yes, please elaborate. Please include the amount of time spent meditating (hours per week) past or current, as well as length of practice (e.g. "I have been going to yoga once a week for two hours for the past six months."): _____

_____

_____

_____

APPENDIX D

Overall Job Satisfaction scale

Using the scale indicated please answer the three questions below:

1	2	3	4	5	6	7
Strongly Disagree	Disagree	Slightly Disagree	Neither agree nor disagree	Slightly Agree	Agree	Strongly Agree

1. All in all, I am satisfied with my job _____
2. In general, I don't like my job _____
3. In general, I like working here _____

APPENDIX E

Social Support scale

Using the scale indicated please answer the questions below:

0	1	2	3	4
Don't have any such person	Not at All	A Little	Somewhat	Very Much

1. How much does each of these people go out of their way to do things to make your work life easier for you?
   D. Your immediate supervisor _____
   E. Other people at work _____
   F. Your wife [husband], friends and relatives _____

2. How easy is it to talk with each of the following people?
   A. Your immediate supervisor _____
   B. Other people at work _____
   C. Your wife [husband], friends and relatives _____

3. How much can each of these people be relied on when things get tough at work?
   A. Your immediate supervisor (boss) _____
   B. Other people at work _____
   C. Your wife [husband], friends and relatives _____

4. How much is each of the following people willing to listen to your personal problems?
   A. Your immediate supervisor _____
   B. Other people at work _____
   C. Your wife [husband], friends and relatives _____

APPENDIX F

Mindful Attention Awareness Scale (MAAS)

Day-to-Day Experiences

Instructions: Below is a collection of statements about your everyday experience. Using the 1-6 scale below, please indicate how frequently or infrequently you currently have each experience. Please answer according to what really reflects your experience rather than what you think your experience should be. Please treat each item separately from every other item.

1	2	3	4	5	6
Almost Always	**Very Frequently**	**Somewhat Frequently**	**Somewhat Infrequently**	**Very Infrequently**	**Almost Never**

1.	I could be experiencing some emotion and not be conscious of it until some time later	1	2	3	4	5	6
2.	I break or spill things because of carelessness, not paying attention, or thinking of something else	1	2	3	4	5	6
3.	I find it difficult to stay focused on what's happening in the present	1	2	3	4	5	6
4.	I tend to walk quickly to get where I'm going without paying attention to what I experience along the way	1	2	3	4	5	6
5.	I tend not to notice feelings of physical tension or discomfort until they really grab my attention	1	2	3	4	5	6
6.	I forget a person's name almost as soon as I've been told it for the first time	1	2	3	4	5	6
7.	It seems I am "running on automatic," without much awareness of what I'm doing	1	2	3	4	5	6
8.	I rush through activities without being really attentive to them	1	2	3	4	5	6
9.	I get so focused on the goal I want to achieve that I lose touch with what I'm doing right now to get there	1	2	3	4	5	6
10.	I do jobs or tasks automatically, without being aware of what I'm doing	1	2	3	4	5	6
11.	I find myself listening to someone with one ear, doing something else at the same time	1	2	3	4	5	6
12.	I drive places on "automatic pilot" and then wonder why I went there	1	2	3	4	5	6
13.	I find myself preoccupied with the future or the past	1	2	3	4	5	6
14.	I find myself doing things without paying attention	1	2	3	4	5	6
15.	I snack without being aware that I'm eating	1	2	3	4	5	6

APPENDIX G

Oldenburg Burnout Inventory (OLBI)

Instructions: Below are statements with which you may agree or disagree. Using the scale, please indicate the degree of your agreement by selecting the number that corresponds with the statement.

1	2	3	4
Strongly Agree	**Agree**	**Disagree**	**Strongly Disagree**

1	I always find new and interesting aspects in my work	1	2	3	4
2	There are days when I feel tired before I arrive at work	1	2	3	4
3	It happens more and more often that I talk about my work in a negative way	1	2	3	4
4	After work, I tend to need more time than in the past in order to relax and feel better	1	2	3	4
5	I can tolerate the pressure of my work very well	1	2	3	4
6	Lately, I tend to think less at work and do my job almost mechanically	1	2	3	4
7	I find my work to be a positive challenge	1	2	3	4
8	During my work, I often feel emotionally drained	1	2	3	4
9	Over time, one can become disconnected from this type of work	1	2	3	4
10	After working, I have enough energy for my leisure activities	1	2	3	4
11	Sometimes I feel sickened by my work tasks	1	2	3	4
12	After my work, I usually feel worn out and weary	1	2	3	4
13	This is the only type of work that I can imagine myself doing	1	2	3	4
14	Usually, I can manage the amount of my work well	1	2	3	4
15	I feel more and more engaged in my work	1	2	3	4
16	When I work, I usually feel energized	1	2	3	4